Vol. X, No. 1 January, 1934

SOAP

with which is included an

Insecticide & Disinfectant Section

Published by MACNAIR-DORLAND COMPANY, INC., 136 Liberty Street, New York

Essential Oils and Perfume Materials
OIL BOIS DE ROSE CAYENNE
LINALOOL BOIS DE ROSE
OIL BOIS DE ROSE BRAZILIAN
A COMBINATION of controlled production and greater consumer consumption of all Bois de Rose types, recommends them to your attention now . . . We are headquarters for the best quality oils at competitive prices . . . We will quote for contract or prompt shipment.
UNGERER & COMPANY
NEW YORK

in Your Sample Case THIS YEAR

Many jobbers, staggering to their feet after months of struggling with cut-throat soap competition, now find themselves faced with an equally difficult problem—that of determining which liquid toilet soaps will best stimulate sales in 1934.

To these jobbers Falcon says—"Here's a line of liquid toilet soaps whose label has always been a recognized quality safeguard to the buyer and a selling asset to the jobber. Here's a line of soaps made of the finest raw materials under strictest laboratory control. Here's a line that was handled by more jobbers in 1933 than in any previous year."

There is room for Falcon Liquid Toilet Soaps in your sample case for 1934. Whether it be Falcon 40% Concentrated Soap, Falcon 15% U. S. Government Standard Soap or any one of the many grades, you have a soap for every type of customer and pocketbook.

Build your 1934 business around Falcon. It guarantees satisfied customers and an upward moving sales curve. Send for our latest descriptive price list today.

NRA

EAGLE SOAP CORPORATION

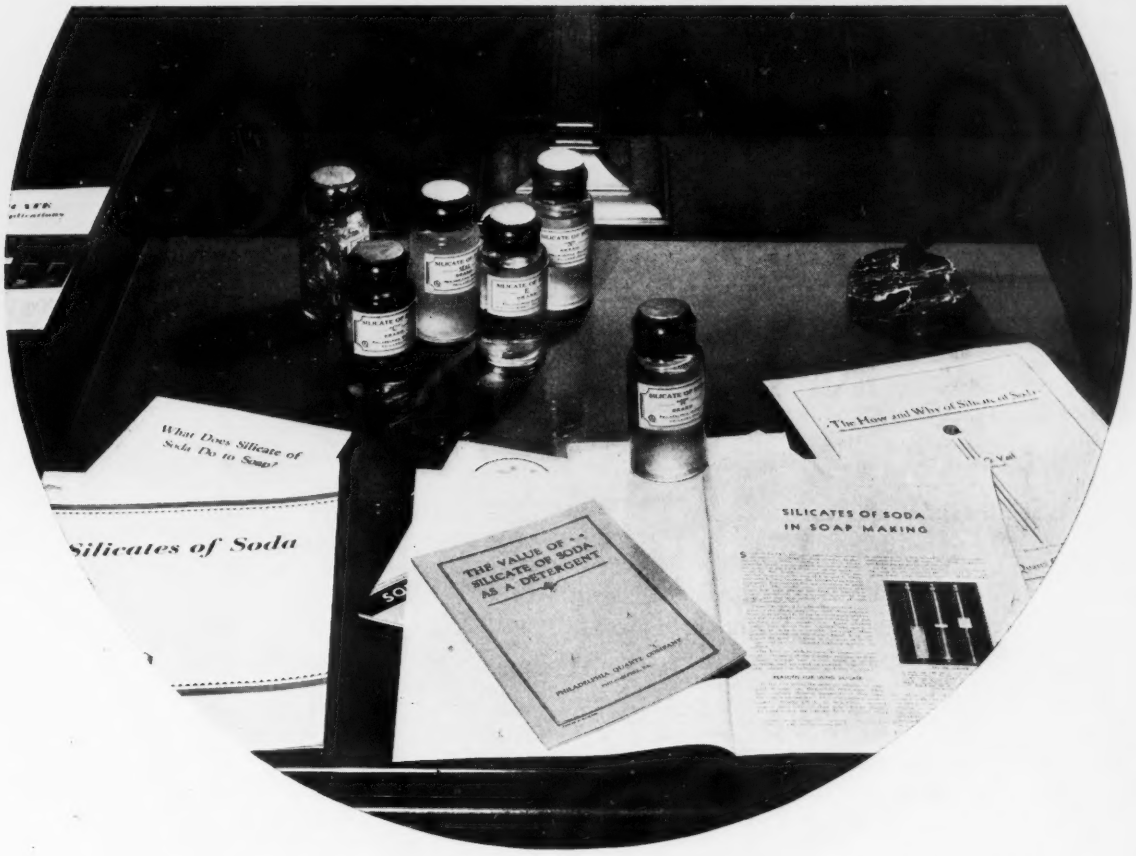
25 E. JACKSON BLVD. CHICAGO, ILL.

NRA

Falcon Liquid Toilet Soaps

MADE BY THE MAKERS OF THE FAMOUS FALCON DEODORANT BLOCS AND CHALLENGER URINAL BLOCKETTES

P. Q. SILICATES PREFERRED


What Does Silicate of Soda Do to Soap?
Silicates of Soda
THE VALUE OF SILICATE OF SODA AS A DETERGENT
SILICATES OF SODA IN SOAP MAKING

UNIFORM QUALITY for nearly three-quarters of a century has earned for P. Q. Silicates the reputation of reliability. To that add the very important factor of steady, unfailing supply, for P. Q. Silicates are manufactured at eight conveniently located plants east of the Rocky Mountains (in Canada at Toronto). Woven through the history of soap and detergency since the Civil War is P. Q.'s research. Our Technical Division is alert to possible new detergents and offers its assistance to you. When you specify P. Q. Silicates of Soda therefore you are assured of dependable quality and delivery, also generous advisory service.

PHILADELPHIA QUARTZ COMPANY

General Offices and Laboratory: 125 S. Third Street, Philadelphia, Penna.

Chicago Sales Office: 205 W. Wacker Drive. Stocks in 65 cities. Sold in Canada by NATIONAL SILICATES LTD., Toronto, Ontario

WORKS: Chester, Pa., Kansas City, Kans., Baltimore, Md., Rahway, N. J., Anderson, Ind., St. Louis, Mo., Gardenville, N. Y., Utica, Ill.

L669.C51 S676. 601265

LINERS "STAY PUT" IN ANCHOR MOLDED CAPS

Whether a manufacturer realizes it or not, the efficiency of any package sealed with a molded type of closure depends on the proper functioning of the liner.

It is not by accident that liners never fall out of Anchor Molded Caps. It does not just happen that they never stick to the top of the bottle as the cap is removed. It is not by chance that packagers who use Anchor Molded Caps are free from trouble with poorly sealed packages, and that production goes along smoothly and efficiently.

All this is due to two little features that these caps, and these caps alone, possess. First is the *liner retaining ledge* which can be plainly seen in the center illustration as a projection just below the liner. This small ridge or ledge partly encircling the cap holds the liner in place. The space above it is the *liner recess* which permits the liner to fit easily without being wedged into place. It also allows the liner to rotate freely as the cap is applied and re-applied.

Consider for a moment what these features mean to you. All caps are delivered equipped with liners, ready to use. Liners cannot fall out in transit nor in the hoppers of automatic capping machines. Caps do not have to be inspected to make sure that the liner is present. Production can go ahead without a hitch or break.

Since liners lie flat in the liner recess there is no buckling or wrinkling with consequent chance for leakage or breakage of caps as they are applied. And since the liners are free to rotate, the surface cannot be scraped or injured as they are screwed home. These features aid in giving a uniformly tight seal, preventing evaporation, leakage or escape of volatile elements.

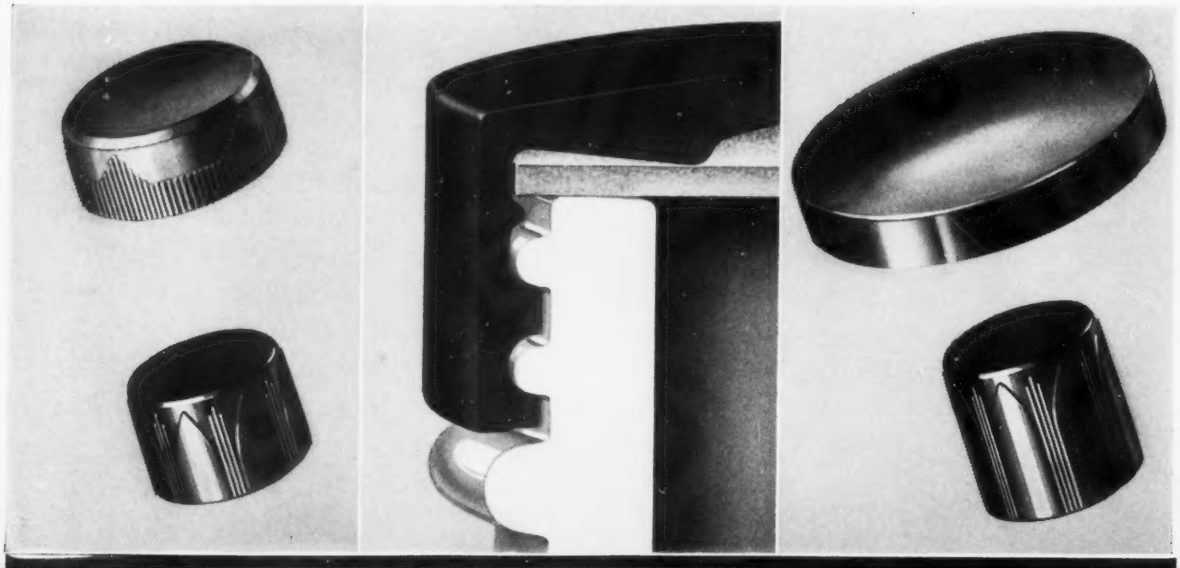
* * *

We could go on and cover in detail all of the other advantages of Anchor Molded Caps, for the consumer as well as for you; but this one virtue—holding the liner in place—is so outstanding that it alone justifies their selection over any other cap on the market today. For full information on the various styles available write for our booklet, Anchor Molded Caps, which describes them in detail.

ANCHOR CAP AND CLOSURE CORPORATION
LONG ISLAND CITY, N. Y. TORONTO, CANADA

Branch Offices: ATLANTA · BOSTON · CHICAGO · CLEVELAND · DETROIT HOUSTON · LOS ANGELES · LOUISVILLE · MONTREAL · NEW YORK · PHILADELPHIA · PITTSBURGH · ROCHESTER · SAN FRANCISCO · ST. LOUIS · TORONTO

Cutaway view of Anchor Molded Cap



ANCHOR MOLDED CAPS FOR SOAPS & INSECTICIDES

SOAP

Reg. U. S. Patent Office

Volume X
Number 1

Contents

- Editorials 17
- The Raw Material Markets 19
- Properties of Abrasive Polishes— by Alfred E. Searle 23
- Soap Code Developments 27
- Trade Mark Use After Cancellation 29
- Scouring Powders— by H. B. Kellogg 59
- Special Soaps 61
- Report of 20th Annual Insecticide and Disinfectant Convention 81
- Factors in Insecticide Performance— by D. F. Murphy and C. H. Peet 95
- Personal and Impersonal 39
- Contracts Awarded 47
- Records of Trademarks 43
- New Patents 45
- Market Reports 48-51
- Current Raw Material Prices 53-54
- Products and Processes 65

January, 1934

«

INSECTICIDE and Disinfectant Section, which is included as a department of every issue of SOAP, begins on page 71. Oil, Fat & Soap Production Section begins on page 59. These sections contain news, articles and editorial opinion of particular interest to their respective industries.

«

«

Published monthly on the 15th by

MACNAIR-DORLAND COMPANY, INC.

136 LIBERTY STREET NEW YORK, N. Y.

Subscription rate $3.00 per year. Foreign, except Canada, $4.00. Canadian, $5.00. Copy closing dates—7th of month of issue for reading matter and 25th of month preceding month of issue for display advertising. Entered as second-class matter, April 11, 1931, at Post Office, New York, N. Y., under act of March 3, 1879. Mail circulation, December, 1933, issue 2,817 copies. Total distribution 3,000.

You be the Judge

If the right closure for your product is a screw cap, there are many reasons why you should use the Crown Screw Cap with the Deep Hook Shaped Thread.

This patented thread formation gives greater pull-down sealing pressure — a tighter, more dependable seal. It has the ability to seal variations in glass finishes without jamming or cocking. You get uniform sealing, smoother production, lower sealing costs. And although your product is sealed tighter, this cap is far easier for consumers to remove.

Many large users are enthusiastic about the results they are getting with Crown Screw Caps, but, even so, do not accept their merits on faith.

Send for samples and make your own comparison. The special problem you have is something the C. C. S. Laboratories can help you solve. Why not send it in? No obligation. Just use the coupon.

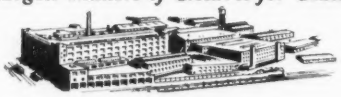
Use this

EFFECTIVE SEALING · SUITABILITY FOR PRODUCT · EASY APPLICATION · EASY REMOVAL · BEAUTIFUL DECORATIONS · DEPENDABLE SUPPLY · NATION WIDE SERVICE

TO OBTAIN THE RIGHT CLOSURE FOR YOUR PRODUCT

CROWN CORK AND SEAL COMPANY

World's Largest Makers of Closures for Glass Containers

BALTIMORE  MARYLAND

CROWN CORK AND SEAL COMPANY, BALTIMORE, MD.

☐ Send Samples of Crown Screw Caps—(C.T. or Mason) _____ Sizes _____

☐ Have your representative call. Liners preferred _____

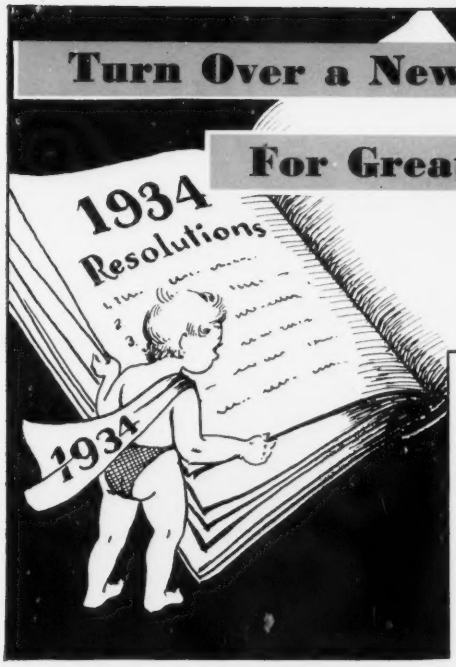
Name _____ *Address* _____

City _____ *State* _____

Turn Over a New Leaf

For Greater TURNOVER

in 1934 . . . .



ALL signs point to bigger and better business in 1934. Get ready for prosperity by handling basic and finished CLIFTON PRODUCTS which for the last 20 years have aided other progressive jobbers in building permanent, successful businesses.

- Liquid Soap Base
- Scrub Soap Base
- Semi-Castile Liquid Soap
- Liquid Soap Dispensers
- Rub-No Floor Wax
- Pine Disinfectant
- Cresolene Disinfectant
- Fragrantaire Blocks
- Wall Containers
- Deodorette Cakes
- Dazzle Metal Polish
- Shampoo Liquid & Base
- Silver Polish Paste
- Furniture Cream

CLIFTON high quality is remembered long after the low cost is forgotten. Attractive imprint labels and circulars are part of the service and cooperation you will be entitled to; handle C. C. C. products . . . it pays!

CLIFTON CHEMICAL CO., INC.
CLIFTON BUILDING, 246 FRONT STREET, NEW YORK CITY
"Quality Sanitary Products Since 1912"

GET THE DETAILS →

● TEAR OFF AND MAIL THIS COUPON ●

Clifton Chemical Co., Inc.,
246 Front Street, New York, N. Y.

Please quote on the following items we have checked:

☐ Semi Castile Liquid Soap	☐ Deodorizing Cakes & Blocks	☐ Dazzle Metal Polish
☐ Liquid Soap Base	☐ Deodorizing Block Containers	☐ Shampoo Liquid & Base
☐ Oil Soap	☐ Coal Tar Disinfectant	☐ Shaving Cream
☐ Liquid Floor Cleanser	☐ Pine Tree Disinfectant	☐ Furniture Cream
☐ Silver Polish Paste	☐ Rub-No Wax	☐ Bar Oil

(NAME) .....

(ADDRESS) .....

THE FIRST, AND STILL THE FIRST

Niagara

CAUSTIC POTASH

Niagara Alkali Company was the first, in this country, to manufacture Caustic Potash. Our many years of development, experience and increasingly expert control have produced a grade of potash which is the finest obtainable here or abroad.

Caustic Potash is difficult to produce in a pure state. For a safe, consistently excellent quality, specify *Niagara.*

NIAGARA ALKALI COMPANY

Associated with Electro Bleaching Gas Co.
Pioneer Manufacturer of Liquid Chlorine

9 East 41st Street, New York, N. Y.

FOR YOUR ROSE NOTES...

Investigate

FELTON'S
GERANIOLS
RHODINOL
LINALOOL

ALL FELTON AROMATICS ARE MANUFACTURED UNDER RIGIDLY CONTROLLED CONDITIONS WHICH ASSURE ABSOLUTE UNIFORMITY. . . . . .

Send For Samples and Quotations

FELTON CHEMICAL COMPANY, INC.

Executive Offices and Factory—599 JOHNSON AVE., BROOKLYN, N. Y. *Chicago, Ill., Office*—1200 NORTH ASHLAND AVE.

Stocks Carried in the Following Cities:

LOS ANGELES, CAL.
WM. PAUER
1131 N. Orange Grove Ave.

SAN FRANCISCO, CAL.
A. H. DOREMUS
1282 Folsom St.

CHICAGO, ILL.
M. HARTSTEIN
1200 No. Ashland Ave.

NEW ORLEANS, LA.
ROBERT E. FELTON
Balter Bldg., Rm. 407

BASIC PERFUME MATERIALS

We are offering a very complete and diversified line of Essential Oils and Aromatic Chemicals of particular interest to Soap Makers and Manufacturers of Paradichlorbenzene and Naphthalene products. When in the market may we have the opportunity to submit prices and samples for comparison?

As representative of the well known house of Bertrand Freres, S/A of Grasse, France, we are in a position to offer oils such as Lavender, Geranium, Thyme, Rosemary, etc., of the highest quality at competitive prices.

SUPER SOLUBLE PERFUME BASES

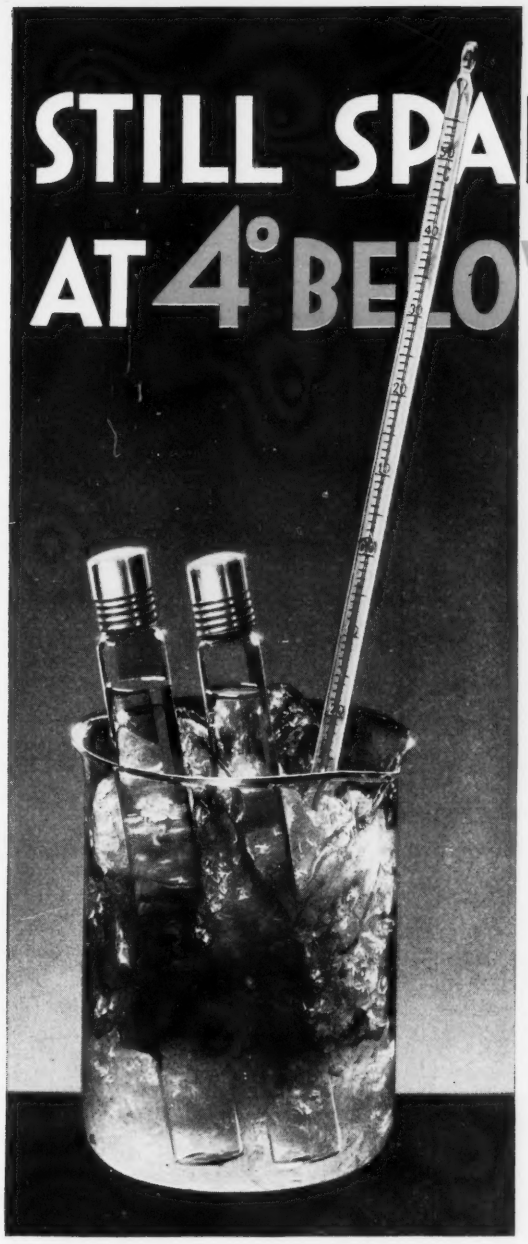
Our laboratory has recently developed a line of concentrates which produce perfectly clear products when used in the proportion of one to two ounces per gallon of water. This new type of base is offered in a wide range of odors, each at $1.50 per pound. A sample sufficient to prepare a trial gallon will be forwarded upon request.

MEMBER NATIONAL INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

P. R. DREYER INC.

12 East 12th Street New York

"It's the Odor that Sells the Product"



STILL SPARKLING CLEAR AT 4° BELOW ZERO C.!

TRY this test on the liquid soap you are now buying,-- particularly the concentrated (40%) which you are using as a base to produce liquids of lower soap content.

"BUCKEYE" and "GEM" concentrate liquid soaps remain absolutely clear at temperatures below zero C., lending themselves perfectly for use at all temperatures as a base in producing liquids of lower soap content.

Just dilute them with distilled water --- no need whatever for any filtering.

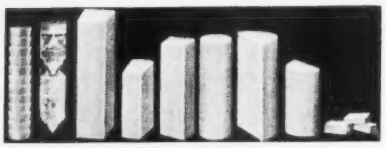
Send for samples and prices. No obligation.

THE DAVIES-YOUNG SOAP CO.
Dayton, Ohio

"BUCKEYE" CONCENTRATE
and
"GEM" CONCENTRATE
Liquid Soaps

Copyright 1933
By The Davies-Young Soap Co.

BIG profits WITH THIS PROVEN LINE OF SANITARY SPECIALTIES



AIR PURIFYING BLOCS

We are the pioneers and original patentees of air conditioning blocs. Hard uniformly perfumed blocs made of 100% para and finest essential oils. In sizes and shapes to fit any containers. Colors and fragrances to meet current demand. Packed for you under your private label if desired. Also Urinal Blocettes individually wrapped in cellophane and Deodorizing Crystals in bulk or packed in handsome lithographed tins with or without our name.

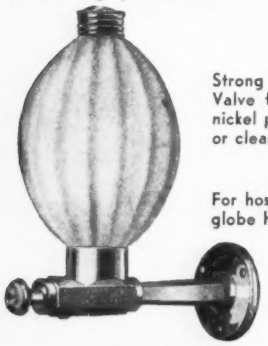
BLOC CONTAINERS

Neat dignified-looking perforated containers, made of 24 gauge heavy metal—equipped with lock and sliding back.

In White Enamel, Porcelain, Oxidize or Nickel Plate with your nameplate or plain.

In three sizes:—

Large 3¼" x 3¼" x 9¾"—Holds 40 oz. bloc
De Luxe 2¾" x 2¾" x 8" — " 25 or 16 oz. bloc
Aerzonette 3½" x 1½" x 1½"— " 4 oz. bloc
Can be supplied plain or with your nameplate.



SOAPERIOR LIQUID SOAP DISPENSER
(Push-In Type)

Strong attractive leak-proof dispenser embodying patented "SOAPERIOR" Hexagon Valve features. Heavy one-piece bracket of non-corrosive white metal chrome or nickel plated. Non-removable 18 oz. capacity fluted glass globe of white opalescent or clear crystal glass (also jade green and black glass or all-metal).

BABETTE PORTABLE BABY SOAP DISPENSER

For hospital nursery. BABETTE is made of strong chromed white metal with frosted globe holding a pint of soap. Leak-proof . . . filled through a large opening on top. Weight of hand on flange delivers soap in a continuous stream (leaving nurses' arms free). No pumping necessary. Weighted to prevent tipping. Convenient handle for carrying.

SOAPERIOR
Model 121

Also other styles wall and basin type Dispensers, Gravity Feed Equipment, Portable and Elbow-Operated Dispensers. Send for catalog.

PERFECTION PUSH-UP LIQUID SOAP DISPENSER
Model 125

Inexpensive yet incorporates leak-proof valve and patented cone type shut-off. Bracket of white metal nickel or chromed. Transparent heavy glass globe (screws in) holds 14 oz. of soap.

BABETTE
Model 132

Send for samples and prices of BABETTE Infants Pure Castile Soap. Also Surgical Soaps for hospitals.

BUILD BUSINESS UNDER YOUR PRIVATE LABEL

LUSTERBRYTE

No-Rub water emulsion wax (Liquid). Requires no buffing after application • dries glossy in 10 to 15 minutes . contains high percentage of Carnauba Wax neutral, no excess alkali.*

U. S. GYM FINISH

This superior no-burn gym finish is unexcelled for use on wood, cement, cork and linoleum floors. A preservative and protective treatment. . it resists hot water, strong alkali and some strong acids. Prevents rubber burns. The hardest and yet most flexible finish yet produced for gym floors.*

VARNISEPTIC MOPPING VARNISH AND FLOOR SEAL

Produces a lustrous non-slippery tough resilient surface easy to maintain. Unexcelled sealing properties . . . resists moisture, oil, grease, traffic. For cork, linoleum, cement, concrete and wood floors.*

U. S. TERRAZZO SEAL

This new protective sealer preserves colors, prevents pittings, resists water, traffic and practically eliminates scrubbing. Adds years to life of terrazzo. Absolutely, non-slippery. Excellent coverage.

*NOTE—Packed in 65, 35, 15, 10 and 5 gallon drums and 1 gallon cans.

SOAP DEPT. liquid toilet soaps, mechanic's soap, scrubbing soaps, green oil soaps, shower bath soaps, automobile soap.

SOAP DISPENSER DEPT. soaperior soap, dispensers, all types for industrial or hospital installations.

DISINFECTANT DEPT. coal tar products (co-efficient 1 to 20), pine oil products, chlorine products, live stock dips, cresol compound U. S. P., or Technical, formaldehyde, odorless disinfectants, perfumed sprays.

POLISH DEPT. metal polishes, furniture polishes, automobile polishes, floor and dressing oils, waxes.

SPECIALTIES DEPT. indoor chemical toilets, sprayers (hand and power), drinking fountains, aerzonator air conditioners, vending machines and sanitary napkins.

MISCELLANEOUS formaldehyde fumigators, chemical pipe cleaner, deodorizing powders, sweeping compounds, toilet bowl cleaners, weed killers, gum removers, ratacides.

INSECTICIDE DEPT. liquid exterminators, powder exterminators, mosquitocides, gas fumigating machines, vaporizers, concentrated insecticides.

Send for Price Bulletin on these fine products. Priced right. . . . dependable and profitable.

U. S. SANITARY SPECIALTIES CORPORATION

433 - 441 So. Western Ave., Chicago, Illinois

The key to

THIS MERCHANDISING SUCCESS*

(and many another)

IS A SPECIAL PERFUME COMPOSITION

by the HOUSE OF ALBERT VERLEY, INC.

This salable product, marketed by a distinguished American house, typifies the results one may expect upon presenting a problem privately to Albert Verley, Inc. ● Sophisticated American houses realize that Dr. Verley is a genius in the manufacture of finer **Synthetics** and in the discovery and perfection of new Synthetics with which to create new, modern compositions. Hence come new notes, new shadings, originality. ● Add to these resources the exclusive use in Albert Verley compositions of the natural **flower Essences** and **essential Oils** produced by the venerable house of Tombarel Freres, Grasse, France—and truly one has a basis for achievement and quality. ● In the art of **blending** fine aromatic materials, skill comes with years of intimate knowledge and research. ● These are the ingredients of success. The **creation** itself . . . . developed exclusively for a client by the American technical staff . . . . you may judge by writing to us for a blotter . . . . as the public has already judged it, with favor. ● We stand ready to serve you in like manner. **Albert Verley, Inc.,** David A. Bennett, President, 11 East Austin Ave., Chicago; L. J. Zollinger, Vice President, 114 East 25th St., New York. Exclusive American representatives for ETABLISSEMENTS ALBERT VERLEY, 8, Quai de la Marine, Isle St. Denis (Seine), Paris, and S. A. TOMBAREL FRERES, Grasse, France. Pacific Coast Distributors: Mefford Chemical Company, 1026 Santa Fe Ave., Los Angeles.

*An obligation of honour, in accordance with the customary policy of Albert Verley, Inc., prevents naming this well-known patron

Albert Verley PERFUME COMPOSITIONS

Verley and Tombarel standard Essences, with competent but unobtrusive advisory service, are available to those equipped for compounding.

announcing the 1934

The new 1934 edition of the SOAP BLUE BOOK will be mailed to subscribers early next month. It is a combined buyer's guide, technical and business reference book and catalog of raw materials, containers, equipment, etc.

The BLUE BOOK'S 172 pages are packed with valuable information for manufacturers and jobbers of soaps and sanitary products.

Every subscriber to SOAP will receive a free copy. If you do not subscribe a subscription should be entered promptly to insure getting the BLUE BOOK. Twelve issues of SOAP plus the SOAP BLUE BOOK cost $3.00. The book alone costs $2.00.

As usual the BLUE BOOK will contain a complete buyer's guide. This year the guide has been divided into two sections, as described below. An entirely new section is described on the opposite page.

BUYER'S GUIDE SECTION

A complete list of suppliers of all raw materials, packaging accessories, machinery, etc., bought by manufacturers of soaps and sanitary products. Also a complete list of manufacturers of all kinds of soaps, sanitary products, sanitary accessories, etc., for the jobbing trade. Advertisers in the catalog section are listed in heavy type along with their advertising page numbers. This enables the user of the book to secure more complete information about the item in which he is interested.

CATALOG SECTION

Condensed catalogs of sixty of the leading concerns supplying the soap and sanitary products industries.

4 SOAP BLUE BOOK

BUSINESS AND TECHNICAL REFERENCE SECTION

THE SOAP CODE—a complete text of the Code of Fair Competition for the Soap and Glycerin Industry.

FEDERAL SPECIFICATIONS for eleven soaps and cleaners and for glycerin.

COLORING SOAPS AND SANITARY PRODUCTS—a review of the principal types of coloring materials with practical suggestions for coloring seventeen of the most important soaps and sanitary specialties.

PEET-GRADY TEST FOR HOUSEHOLD INSECTICIDES — the complete official N. A. I. D. M. test for determining the effectiveness of insecticide sprays.

SOAP PERFUMING—a review of the principal types of soap perfuming materials with complete tables describing the action of each as a soap perfume.

THE F. D. A. TEST FOR DISINFECTANTS AND ANTISEPTICS — complete testing methods prescribed by the Food & Drug Administration and official with the N. A. I. D. M.

MACNAIR-DORLAND COMPANY

Publishers

136 LIBERTY STREET NEW YORK

5 OF 5

Carton users whose yearly advertising expenditures, each, exceed $1,000,000.00, use

JONES CARTONERS

12 OF 14

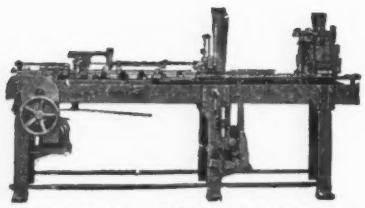
Carton users whose yearly advertising expenditures, each, exceed $500,000.00, use

JONES CARTONERS

21 OF 26

Carton users whose yearly advertising expenditures, each, exceed $200,000.00, use

JONES CARTONERS



CONSTANT MOTION CARTONER

Successful manufacturers "look before they leap," their best engineering talent is employed in selecting mechanical equipment. Their engineers use every possible means of getting all the facts about cartoning machines before they recommend them. The time and trouble required to follow this course amount to little, and the result is the satisfaction of having the most durable, economical and efficient machines on the market.

Let us give you all the facts about

CONSTANT MOTION CARTONERS

R. A. JONES & CO., INC., P. O. BOX 485 CINCINNATI, OHIO

Our laundry and toilet soap presses are used almost exclusively by manufacturers the world over, for pressing cakes of soap of every shape, size and quality. Write for catalogue.

NRA MEMBER U.S. WE DO OUR PART

SOAP

Volume Ten **Number One**

EDITORIAL

OUTSTANDING in 1933 was the adoption of a code by the soap industry. Employment in excess of one hundred per cent of "normal" was boosted to one hundred twenty per cent at the end of the year. Again in 1933, the soap industry found itself near the top of the list as far as general business activity was concerned. Looking to 1934, there still remains to be adopted the trade practice codes for the private brand soapers, the potash soap trade, soap powder manufacturers, and other groups. Through them, it is hoped that many of the practices which have been frowned upon and which have taken their toll in profits will be eliminated. Of oil and fat markets, tariffs, and taxes considerable seems destined to be heard this year. A new and drastic food and drug act may become a fact during the year, although at present, the opposition seems to be gaining strength with each passing month.

Opinion in the soap industry indicates that the trade as a whole expects 1934 to show improvement. Tonnage has held up and is expected to continue to do so. Dollar volume, as a result of recently lower prices, has tended to decrease. However, the prospects for better margins of profit seem more general in spite of increased labor costs under the NRA. This is undoubtedly due to the favorable raw material position in which most soapers find themselves. Unless there is a sudden upheaval in raw material prices as a result of legislation or other causes, the industry should find 1934 in general a satisfactory year.

—o—

THE fight to shut off the flow of imported oils and fats into the United States goes on in Washington. The demand of the agricultural, dairy, cotton oil, and rendering interests for a five-cent per pound excise tax, is, of course, ridiculous. This is equivalent to placing a tariff on imported oils and fats of 100 to 150 per cent. If the proponents of an excise tax of this size are genuinely serious, then it is our reaction that their judgment is badly at fault. They have laid their whole plan open to ridicule even before it has a chance to leave the Ways and Means Committee. Their request is obviously excessive and, being such, discredits itself. Feeling that they have been "victimized" by cheap imported fats, they, in turn, apparently are intent upon doing a little "victimizing" themselves at the expense of every oil and fat consumer. Two wrongs have never made a right yet and will not in this case. No doubt exists but that domestic producers of oils and fats are entitled to some protection from the type of competition they have been getting from foreign shippers for the past year or two. Such protection, if it comes, should be reasonable and adequate,—and what is such should be left to the determination of an unbiased com-

mission. As to the demand for a tax of this magnitude,—five cents per pound,—it bears the indelible imprint of the professional agricultural lobbyist,—blindly conceived and stupidly proposed.

—o—

THE code authority of the soap and glycerine industry,—the body which will enforce the code,—has been chosen and approved by the NRA. It is at present practically identical with the board of directors of the Association of American Soap and Glycerine Producers. Thus far, it has held two meetings and has handed down interpretations on the code in response to a number of questions submitted from the industry. If there are any points in the code which affect your business and which you do not understand, submit your problem to the Code Authority for a ruling. Direct your inquiries to the Association office, 386 Fourth Avenue, New York. If you make *any* soap, you are subject to the soap code whether it be your main business or not. Do not guess. Obtain the official answers to your questions by submitting them to the Code Authority.

—o—

FOR the past several years, the price of rosin has been abnormally low. The producers of gum rosin, in particular, have found themselves in an almost hopelessly depressed state as a consequence. The industry, disorganized and disjointed at best, drifted close to the brink of ruin. That it proposes to take advantage of the offices of the Agricultural Adjustment Administration and a marketing agreement to organize and regain its feet is natural. Stabilization of the price of rosin at levels equitable to producer and consumer, is to be commended and encouraged. However, we believe that both the AAA and the rosin people should give particular attention to that word "equitable". To put the price up too high will be only to stifle consumption again as was the case not many years back. In the soap industry, rosin still has to meet the competition of cheap fats. It is very easy to reduce rosin consumption in soap manufacture when it fails to offer a saving in comparison with fat costs. When fat prices are low, as is the case today, the point above which soapers will not buy rosin, is none too high. In other fields, there stands the ever-present array of cheap synthetic resins awaiting only higher rosin prices in order to make their bids. With these facts in mind, we imagine that the rosin people will not permit prices to go beyond a point where the recent history of the industry may repeat itself.

—o—

PALMOLIVE toilet soap has joined Camay in the ranks of five-cent sellers. Recent trade guesses have placed Palmolive third on the list of leading toilet soaps in point of volume. Not many years back, it was the undisputed leader in this class. Today, Lifebuoy is reputed to lead the parade. It is not at all surprising to see C-P-P take this step in an attempt to regain its former position at the top. But with all this keen competition among the leading soapers, we wonder if the American public has even a remote idea of how much more its soap dollar is buying today, both in quality and quantity, than ever before.

—o—

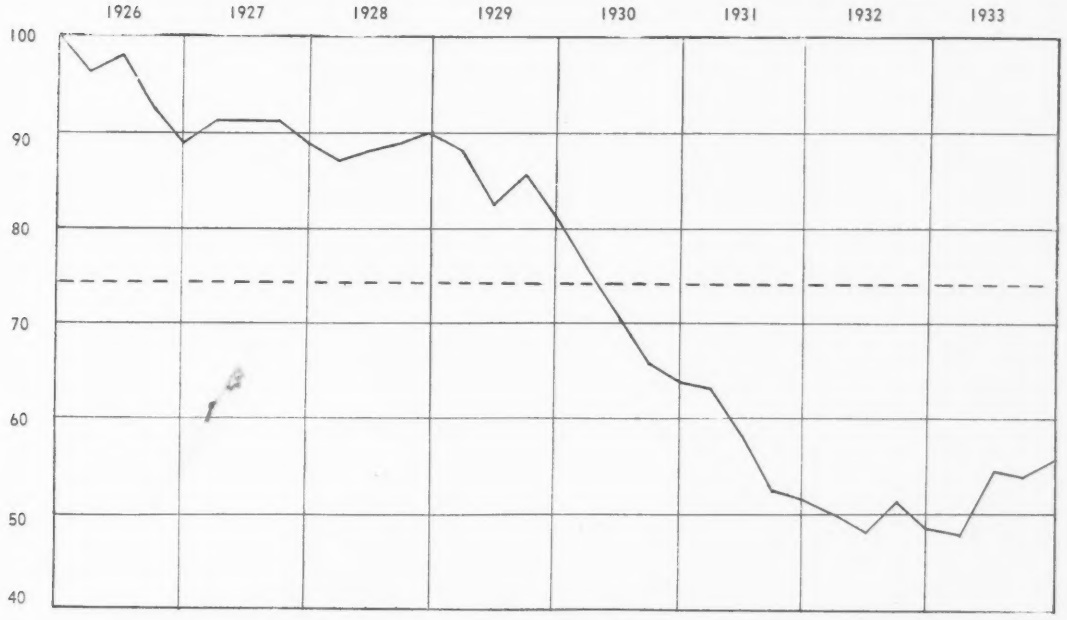
FROM a recent issue of a well-known house organ, we quote the following: "Until 1815, successful soap-making depended upon individual skill. At that time, Chevreul, a French chemist, determined the true chemical character of fats, fatty oils, and soaps, and thus raised soap-making from rule of thumb methods and laid a firm foundation on which our modern soap industry is built." And we might add, judging from what we have seen in the way of soap, that successful soap-making in this year of 1934 still depends upon individual skill. In spite of the work of Chevreul, there are still mysteries remaining today,—a hundred years later,—in the chemistry and technique of soap manufacture.

—o—

THE soap maker who renders his own tallow, or the renderer who manufactures soap,—put it anyway at all,—is between the devil and the deep blue sea in the present market. During the past two months, soap prices have moved downward. Where heretofore it had been possible to make up rendering losses at the soap kettle, keener competition in the soap market has done much to prevent this. Cheap tallow has meant rendering losses for several years. If soap price cutting goes further, just where will this type of manufacturer come out?

The Raw Material Markets

How Will 1933 Developments Affect 1934 Markets?

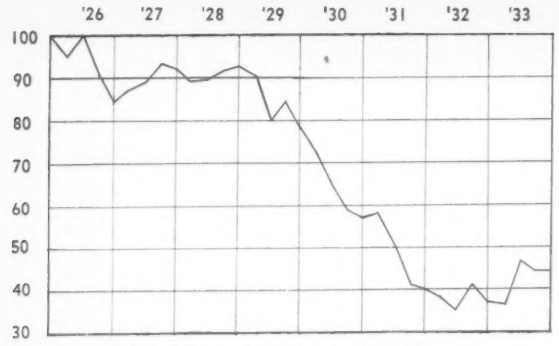


Index of Soap Raw Material Prices—1926-1933. Dotted line shows eight-year average. The 1933 rise has broken the downward trend line on the up-side.

AFTER seven years of declining prices, the market for soapmaking raw materials reversed this trend in 1933, and the price curve seems now to be pointed definitely upward. During the past year, there has been an increase of approximately sixteen per cent in soap makers' raw material costs, according to figures compiled for our annual raw material survey. The first interruption in the long bear market came in the third quarter of 1932. The advance failed to hold, however, and prices subsequently declined in early 1933 to the previous lows. Following the bank holiday, the various governmental financial experiments sent all commodity prices skyrocketing, and the prices of soapmaking materials shared in the general advance. The third quarter of the year saw the advance halted, as it began to be apparent that the rise had been too precipitate and partially of a speculative nature. In the fourth quarter, there was a resumption of the upward movement, and the year-end found the *Soap* raw material index sixteen per cent above its level for January, 1933, and nine per cent above its January, 1932, reading.

In analyzing the current chart position, it becomes apparent that this year the general index has not followed the pattern of the oil and fat chart as closely as in previous years. Oil and fat prices advanced along with other commodity prices during the second quarter of the year, but a fourth quarter advance was lacking in the oil and fat market. Perfuming materials, on the other hand, showed their sharpest gains in the third and fourth quarters, being borne upward by advances in foreign exchange under the stimulus of the government's gold-buying program. Chemicals also showed an advance over the final quarter of the year, with a number of increases being made on such basic commodities as caustic soda, caustic potash, soda ash, etc. This is a rather unusual situation, apparently, in which we find oil and fat prices, which were the hardest hit and most affected in the long decline, halting in their response to the advancing tendency. Soap makers may speculate with interest as to how much their raw material costs would have advanced if oil and fat prices had regained their lost ground at the same rate at which they gave it up.

In the composite chart shown here, the movement of soap raw material prices over the past eight years has been recorded, calculations being based on price movements of a representative group of thirty oils, fats, chemicals, essential oils and perfuming materials, weighted according to their relative importance in tonnage and value to the soap maker. The oil and fat



Index of Oil and Fat Prices—1926-1933

group is naturally given extra weight in computing the indices. The price level for January, 1926, is taken as the base or 100 point, and the indices for the other months, express the relation of prices at those times to prices current January, 1926. Over the eight year period, prices have fallen approximately forty-four per cent. When compared with the eight-year average, however, current prices are found to be only twenty-four per cent below the average for the past eight years.

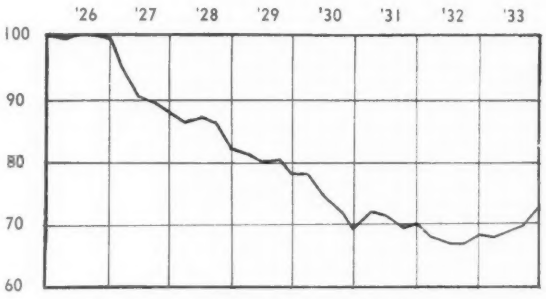
AS indicated above, the sharpest declines in soap raw material prices over the past few years have occurred in the oil and fat group. As compared with the January, 1926, base point of 100, the chart reading at the beginning of 1933 was 37. A recovery of approximately twenty-five per cent was made during the second quarter of the year, but some of the ground gained was lost subsequently. At the beginning of 1934 the chart reading was 44,—an advance of nineteen per cent for the year. The advance in this index compares on a percentage basis with the average of other soap raw materials, but still leaves the oils and fats lagging on recovery behind the rest of the raw materials, since they dropped during the bear market far lower than did other soap making materials.

The ten commodities used in making up the oil and fat price index are: coconut oil, corn oil, cottonseed oil, grease, commercial olive oil, palm oil, red oil, stearic acid, whale oil and tallow. Over the course of the year all items in the list except coconut oil and tallow scored substantial advances, ranging from ten to forty per cent. Coconut oil showed no gain over its January, 1933, price, and the advance in tallow over the course of the year was only fractional.

The factor which depressed the coconut oil market over the past year was the tremendous production and low price of copra. In spite of unusually low prices, the copra crop was not reduced, and heavy shipments were made by all important producing countries. Coast tanks of Manila were quoted around three cents a pound at the beginning of the year and at the end, having been fractionally lower and higher at various points during the year. The domestic oils, corn and cottonseed, on the other hand, shared in the government's attempts to raise basic commodity prices. Crude tanks of corn oil were priced at 3c a pound at the opening of the year, and above 4c at the close. PSY cottonseed oil also gained a cent, going from 3½c pound to 4½c pound over the course of the year.

A rather unusual feature of the market was the ability of the grease market to advance in spite of the excess stocks which had to be absorbed as a result of the government's emergency hog slaughtering program. Yellow grease opened the year priced at 2½c pound and closed the year quoted at 3⅛c pound. Bids on 21,000,000 pounds disposed of by the A. A. A. averaged slightly under 2¾c pound.

Tallow shared with coconut oil the distinction of being one of the weakest items in the oil and fat list. Opening the year at 3c a pound, it shortly declined to the amazing low of 2c. After the reopening of the banks, it made a sharp recovery to the 3c level, but was able to rise only fractionally above this mark throughout the rest of the year. This seemed particularly unusual in view of the fact that the greases showed advances of approximately ¾c per pound over the course of the year. The excessively depressed tallow market was behind the strong movement among the renderers during 1933 in demanding some protection for their industry against competition from low priced imported oils and fats. That low prices for oils and fats during 1933 have



Index of Chemical Prices—1926-1933

given domestic producers a powerful weapon in Washington, is generally admitted. Some kind of tariff or excise tax on foreign fats in 1934 is held to be likely. This could be, conceivably, the single biggest factor in influencing oil and fat prices this year.

THE market for chemicals did not exhibit the sharp fluctuations in prices which characterized the other markets in 1933, but there was a very definite and steady advance through the year, contributed by first one item and then another in the group. Chemical shipments showed a wide increase in tonnage. The ten weighted items used in making up the index are borax, fullers earth, glycerin, caustic potash, pumice stone, rosin, caustic soda, sodium silicate, soda ash and trisodium phosphate. The average for the group was 68 at the beginning of the year, which by the year's end had advanced approximately six per cent to 72—a high point for the past three years.

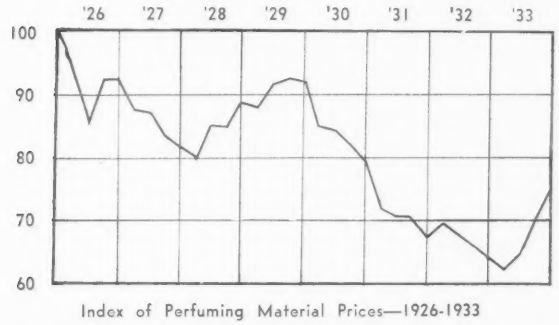
The first important development of the year was an increase in the price of imported caustic potash. This came early in the second quarter and was based on higher import costs, due to exchange movements. In the fourth quarter another advance was made in the price of caustic potash, again based on higher exchange. The net result for the year was to advance this product approximately a cent a pound to 7¼c.

In the fourth quarter higher spot prices were established for caustic soda and soda ash. The base price for caustic soda was advanced from $2.90 to $2.95 per 100 pounds, and soda ash was raised from $1.17 to $1.23. These same quotations were later made effective on 1934 contracts.

Rosin prices fluctuated considerably during the year, with little net change over the full period. In January, 1933, grade WG was priced at $5.65. It declined to $4.80 in the first quarter, registered moderate gains in succeeding quarters and closed the year at $5.35. Production increased some 400,000 barrels over the course of the year, but due to increased demand, both foreign and domestic there was a further decrease in stocks. This return of stocks to a position approaching normal indicates a possibility of further price gains.

THE market for perfuming materials contributed some of the most exciting moments for worried purchasing agents in 1933. As this market is particularly sensitive to the action of foreign exchange, each sensational financial development during the year elevated the quotations on imported perfuming materials and at times made it impossible for buyers to cover their requirements at firm prices. The net gain in our average from its low point over the course of the year was twenty per cent. Unlike the other averages there was no let-up in the advance during the third quarter. The ten perfuming materials used in making up our price index are: oils anise, bergamot, cassia, citronella, cloves, geranium, lavender and rosemary, terpineol and methyl salicylate, weighted according to their relative importance to the soap perfumer. As in the other charts, prices for January, 1926, are taken as the base point.

With the exception of oils bergamot and citronella, and methyl salicylate, all items in the list moved sharply higher during the year. Lack of demand explained the failure of bergamot to rise, many buyers having discontinued its use in recent years due to the failure of foreign producers to maintain quality. Citronella advanced moderately late in the year, but early weakness prevented it from showing a net gain. Of the oils on the strong side of the market, anise, cassia, geranium and lavender, were among the most outstanding. The first two mentioned are tied closely to silver exchange, and each time this advanced prices of these oils rose also. The price of anise was 32c per pound at the beginning of the year and 44c at the close; that of cassia being 83c in January, 1933, and $1.20 in December. The rise in French exchange was partly responsible for the sharp advances in geranium and lavender oils. The upward movement was also helped along by a short lavender crop abroad and only moderately large stocks on this side. Somewhat the same situation prevailed on geranium. Geranium, Bourbon, which at the beginning of the year was priced at $4.50 pound, closed the year at $6.25. The various grades of lavender averaged $2.75 pound at the year's start, and $3.50 at the end.



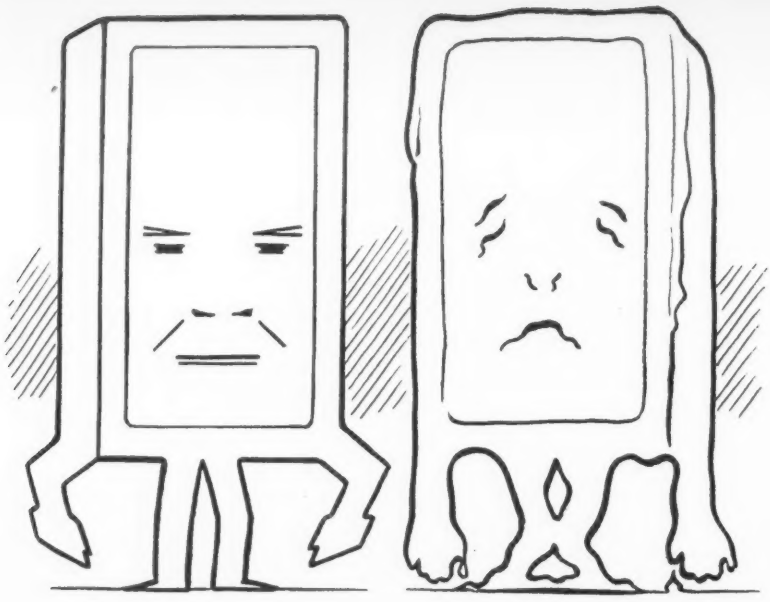
Index of Perfuming Material Prices—1926-1933

As important as the price situation in the essential oil market, was the stock situation. In spite of the long decline in prices, and the exceptionally low levels prevailing a year ago, few users, or dealers for that matter, went into 1934 with particularly heavy stocks. When the exchange rates started skyrocketing, it proved impossible in many instances to get foreign sellers to make firm commitments, and American sellers were unwilling to dispose of their stocks until they had some more definite information as to what replacements would cost. The result was that for the first time in years buyers for a time felt they were seeking favors when they asked for quotations.

To sum up the general aspect of the raw material markets as we enter 1934, it is apparent that the long bear market has run its course. The declining tendency was checked in late 1932 and an advance of really substantial proportions was made in 1933. That it does not loom larger, chartwise, is only because of the relatively more impressive size of the previous decline. Overproduction, checked in 1932, was further minimized as a factor artificially depressing prices in 1933. With further inflationary moves a very definite possibility, there seems every reason to expect the advance to continue during 1934.

—o—

Senator Eugene Charabot, head of Charabot & Co., Grasse, France, returned to France December 16th following a four weeks' visit in New York. Senator Charabot made his headquarters at the New York office of his American Agents, Ungerer & Company and during his stay called on the New York trade in company with F. H. Ungerer, president of Ungerer & Company. A contemplated visit to the trade in other parts of the country had to be postponed due to the necessity of his returning to France before the end of the year. Senator Charabot will return to the U. S. in March.



THEY WERE MEANT TO BE TWINS!

DOES the user of your soap find that some cakes are hard, difficult to lather? . . . that others are excessively soft, seem to dissolve away? With saponification ratings of rosins ranging from 155 to 170, how can you possibly avoid variations in results? The answer is quite simple . . . specify the one "M" type rosin that never varies—Newport **MUNN** Rosin.

Because Newport Wood Rosins are produced in large scientifically equipped plants, with accurate laboratory control, we can assure you that every lot of every given type will be absolutely uniform *chemically* as well as in color, brilliancy and cleanliness. The use of Munn in your soap will give you a better product and save more in production costs than its insignificant additional cost.

Producers also of Newport Steam Distilled Turpentine, Dipentine and Pine Oils

The Plant of The Newport Industries, Pensacola, Florida

GENERAL NAVAL STORES COMPANY, INC.

Address Main Office: *230 Park Avenue, New York City* NEWPORT Plants: *De Quincy, La.; Pensacola, Fla.; Bay Minnette, Ala.*

Properties of Abrasive Polishes

By Alfred B. Searle
Sheffield, England

HERE we have a summary of English practice in polish manufacture by an English authority. Its publication gives our American manufacturers a picture of the differences as well as the similarities between practice in the two countries. For example, whiting is preferred to diatomaceous earth for polishing silver in England. In the United States its use for that purpose is restricted to a very minor fraction of the total output. Differences in climate, habits, etc., must be considered in comparing it with American practice.—Foster Dee Snell, Technical Editor.

A GLOSSY surface may be produced by one of three entirely different means, first by systematically removing all irregularities from the surface until it becomes bright and reflective, second by rendering the surface as smooth as is practicable, filling any minute depressions with a suitable substance, and finally rubbing the whole surface until it becomes glossy, and third by first smoothing the surface and then covering it with a material which when "dry" or "set," has a glossy surface. The substances applied to the surfaces in the first and second processes are known as polishes; the third process is the application of enamels, varnishes and lacquers, occasionally referred to by the term polish. In the present paper the subject of applied surfaces, of enamels, varnishes and lacquers is excluded.

It is not proposed to include recipes in this paper, but it is time that a protest be raised against the inclusion of so many worthless, or almost worthless, recipes in the patent specifications of almost all countries. Over and over again specifications are issued which repeat the old familiar ingredients plus one unusual one having no novel properties, but novel only in the sense that it has not been previously patented. A careful search through Chemical Abstracts as well as through the various European scientific and technical journals reveals a lamentable lack of novelty and very little real technical advance in the properties of abrasive polishes. In the polishes used for wood and leather, far greater advances have occurred than in those used for metals, though far more remains to be done.

It would be highly beneficial if patent examiners could disallow the specification of any ingredient which could, without detriment, be completely replaced by any other used for the same general purpose in the polish. Thus, when almost any liquid of a sufficiently inert nature may be used as a vehicle, it ought not to be possible to patent the exclusive use of any one inert liquid unless it confers properties not conferred by any other substance. A similar restriction should be imposed upon all substances used as detergents, abrasives, or solvents. In the case of peptinizing or "dirt-dispersing" agents more latitude might well be granted, as it may be on the developments of these dispersing agents that future progress in metal-polishes depends.

When a surface, either of wood or metal, is to be polished the first essential is that all irregularities in it shall be removed because the characteristics of a polished surface can only be obtained when it is so smooth or plane that it reflects uniformly all rays of light impinging on it. This removal of irregularities may take place in several stages, the number of which must, necessarily, depend on the nature of the material to be polished. A very hard surface—such as steel—can be polished in fewer stages than a softer one, such as copper, glass, or wood, though materials differ greatly in this respect and some metals, such as brass, silver, and gold, can be polished in fewer stages than their softness suggests.

The first stage is almost wholly mechanical for in it only the largest projections are removed. For this purpose a saw, a plane, or some form of grinding device may be used.

The second stage is usually effected by means of an abrasive, the selection of which must depend on the nature of the material to be polished. Natural emery, artificial corundum, or the various carbides (carborundum, silfrax, etc.), are used for the hardest surfaces; very small particles of the same materials, or those of silica, tripoli or pumice for surfaces of moderate hardness, and whiting or lime for soft surfaces. In this stage the abrasive may be used in either the wet or dry state, the

latter being customary in coarse work and the former for finer grinding.

In the third stage, which is usually regarded as the polishing stage proper, the abrasive is usually mixed with a vehicle other than water, though water may be one of its constituents, and when the polishing is done on a very large scale it may be the only vehicle. In the third stage, a fine-grained mild abrasive is almost invariably used as it is essential to avoid the production of visible scratches.

A fourth stage which consists in rubbing the surface with a cloth or pad made of some soft material, without any abrasive, may be regarded as the final stage.

Later, when the surface becomes dull it will require re-polishing and it is for this latter purpose that most of the proprietory polishes now on the market are sold. In this re-polishing, the surface must be relieved of any tarnish which may have been caused by oxidation or carbonation or by the chemical action of sulphur compounds in the atmosphere, and also of any "dirt" adhering to and obscuring the polished surface. The clean surface thus obtained must then be polished by means of a very mild abrasive in a suitable vehicle.

Constituents of Polishes

COMMERCIAL polishes for re-polishing metal, wood, and lacquered work contain as essential ingredients:

(a) A detergent to remove any "dirt."

(b) An abrasive to remove any tarnish and to remove any irregularities which cause the surface to be dull.

(c) A filler to occupy any interstices or hollows and so produce a uniform surface. In some instances, the filler may also act as a coating and the surface of the filler then becomes the polished surface.

(d) A vehicle, which may also be a solvent, to facilitate the action of the other ingredients.

(e) Non-essential, yet often desirable, ingredients are a color to improve the appearance of the polish and make it more attractive to the purchaser, and a perfume which may serve to mask unpleasant odors in the other constituents or may be merely added to increase the attractiveness of the product.

The detergents used in polishes are chiefly soaps of various kinds, but acids or alkalis are occasionally used. The vehicle may also have a detergent action which either supplements or replaces that of any other detergent. Only a very small proportion of detergent is advisable as these substances tend either to destroy the surface of the polished article or to leave "smears" which only prolonged rubbing will remove.

The use of a hard curd soap (sodium soap) as a detergent is almost invariably satisfactory, but soft soap (potassium soap) and various lime or magnesia-soaps should not be used. The soap employed should contain no free fatty acid as this especially will tend not only to corrode the surface on which it remains; but also to produce smears. At one time, oxalic acid was very popular as a detergent, but it is not now used in high-class polishes as its cleansing action is feeble and the objections to its use are many and serious. Alkalis are seldom used in good polishes as they tend to corrode the surface and so lessen the time during which it remains bright and lustrous. Reducing agents of various kinds have been suggested as detergents. They are seldom satisfactory and are now little used. As a matter of fact, the most objectionable constituents in tarnished metals are not oxides, but sulphides, and reducing agents do not attack these.

Detergents act chiefly by loosening and retaining in suspension the objectionable particles which have been previously loosened by the abrasive. In the case of soap, the suspension is aided by the effect of the soap on the surface-tension of the vehicle and also by any froth or lather produced. Soap has a peculiar peptising action on many apparently inert substances, including those oxides, hydroxides, carbonates, and sulphides which form tarnish; a simple solution of soap will peptize such substances so that they pass through filter-paper quite readily and remain indefinitely long in suspension.

The most important properties of a good detergent in a polish are: wetting power, emulsification, and peptisation, though other minor properties are also essential. Wetting-power and emulsifying-power are closely related to viscosity and surface-tension, for unless the detergent can squeeze in between the "dirt" and the surface to be polished and afterwards can break up the masses of dirt and disperse them no detergent action is possible. This double action of wetting and dispersion requires the surface-tension between the two media to be much lower than that between the dirt and the vehicle.

According to Vincent[1], all salts with an alkaline reaction have the power to "squeeze in," but some—particularly the soaps—possess it much more strongly than others.

The detergent action of the abrasive must not be overlooked. For this reason, many modern metal-polishes contain no detergent other than the vehicle and the abrasive either or both of which may have detergent properties.

Abrasives

THE abrasive must be of a mild type so as to avoid producing visible scratches, and as it "wears away" it should also be readily suspendible in the vehicle. The most popular abrasives are silica-flour, fuller's earth, diatomaceous earth (kiesselguhr, diatomite), tripoli, pumice, chromic oxide, rouge, crocus, and other forms of iron oxide. For silver, hydrated lime and whiting are used.

A coarse, hard abrasive works very rapidly, but cannot produce a smooth surface. Its action must not be unduly prolonged or it will produce scratches so deep that by no subsequent treatment can a reflective surface be obtained.

[1] J. Phys. Chem., 31, 1297 (1927).

Smaller particles of a hard abrasive and larger particles of a softer abrasive are effective in removing irregularities and do not scratch so deeply. Consequently, the best procedure is to employ a series of progressively finer and softer abrasive particles, using each one until its further application becomes objectionable on account of scratching. A change to a finer or softer abrasive should be made when the one in use merely scratches the surface without making it smoother.

Beilby has shown that the action of an abrasive on a moderately rough surface is the same as a highly localized application of heat, particles being torn from the surface, softened as though partially melted, and then spread on the surface before becoming rigid. The pressure applied in the use of such abrasives appears far too low to effect such fusion phenomena, but Beilby has shown that owing to the minuteness of the particles fused, even a light pressure is ample to secure the fusion which occurs.

The siliceous abrasives act rapidly, but unless the particles are extremely small they scratch the surface and prevent a good polish from being produced. Even a few coarse angular fragments may do serious damage. It is, therefore, necessary to exclude all coarse particles and to use only those which will pass completely through a sieve having 240 or more holes per square inch. Some of the cheaper metal polishes contain many coarser particles, and it is impossible to obtain a completely satisfactory result with them. Air-floated or water-floated abrasives are used and special precautions have to be taken to eliminate all coarse particles. A material which contains 0.5 per cent of 100-mesh material is generally useless. For polishing woodwork a slightly coarser abrasive may be used as scratches on wood are less noticeable than those on metal.

The particles of abrasives should be sub-angular. Rounded grains are almost useless and sharply angular ones cause serious scratching. The edges of the particles must be sharp enough to abrade, but not sufficiently sharp to cause deep scratches. The minute angularities of sub-angular grains are excellent.

The silica-flour obtained from quartz is the hardest of the abrasives mentioned and whiting and hydrated lime are the softest. The two latter have so little abrading power that they work very slowly, but if ample time is spent in the polishing they produce excellent results.

Tripoli and pumice are liable to be very irregular in their properties. One of the best abrasives for polishes is Kieselkreide, from an extremely fine siliceous deposit, occurring near Nuremberg, Germany. The particles are angular, but extremely small, and they do not "pack" readily when wet.

When artificially ground abrasives are used, they should be reduced in mills of the percussive type and not in edge-runner or ball-mills as these produce rounded grains.

Rouge and analogous materials are commonly used because of their mildness and also because of the pleasing tint they impart to the polished surface. Their use is confined almost exclusively to metals, as a white polish is preferred for wood and a dyed polish for shoes. Rouge requires special care in preparation or its valuable adsorptive properties will be lost.

The chemical composition of the abrasive is of small importance as long as it is not attacked by the vehicle or any other constituents of the polish. Most siliceous abrasives are unaffected by alkalis in polishes although these abrasives have some acid properties.

To ensure the greatest possible uniformity of action, the abrasive should be tested before use. Otherwise, apparently slight differences in the size of some of the particles may cause serious defects in the polished work. A careful miscroscopical examination, with and without crossed nicols, and a systematic grading test with standard sieves in a suitable shaking or vibrating device are needed to ensure constancy in the physical properties of the abrasive.

Fillers or Coating Materials

A FILLER is not usually necessary in metal-polishes, but in those used for wood or leather it is essential. The most suitable filler is a mixture of hard and soft waxes, the proportions being chosen to suit the climate in which the polish is used. The larger the proportion of hard wax, the brighter will be the polish, but the longer will be the time and the greater will be the labor required to produce it. Too large a proportion of soft wax, on the contrary, will produce a smeary surface on which a brilliant polish can never be obtained. A proper amount of some soft wax is essential as, otherwise, the hard wax will flake and peel away.

The chief waxes used for this purpose are carnauba, beeswax, spermaceti, paraffin-wax of various grades, and a large number of synthetic waxes produced by the hydrogenation of oils and in other ways.

Vehicles

THE vehicle has several functions, of which the most important are to suspend the detergent, to suspend the particles of abrasive and enable them to pass easily over the surface without scratching it unduly, to equalize the pressure applied to the abrasive so that an even surface is produced and pitting is avoided, to dissolve and thereby facilitate the action of the detergent, to act as a solvent or detergent of undesirable soluble substances on the surface to be polished, to suspend the filler and enable it to be distributed uniformly over the surface, and to evaporate at such a rate that the final rubbing may proceed without delay and a high polish be produced. The last two of these functions do not apply to metal-polishes or others in which no wax or equivalent material is used.

The chief physical properties of a good vehicle are the power of retaining small particles in suspension, this being closely related to the viscosity of the liquid: and a

(*Turn to Page* 69)

A INDUSOIL

A NEW FATTY ACID

A low-priced substitute for Commercial Red Oil. Never before manufactured in the United States.

In view of advancing commodity prices, why not standardize on a product less subject to market fluctuations?

(Raw material controlled by us)

Chemical and physical analyses and additional data together with sample furnished on request.

INDUSTRIAL CHEMICAL SALES CO., INC.

INDUSTRIAL CHEMICAL SALES CO., INC.
230 Park Ave., New York City

Please send me a .... oz. sample and chemical analysis of INDUSOIL.

Name .....

Address .....

230 Park Ave.
NEW YORK CITY

205 W. Wacker Dr.
CHICAGO, ILL.

Soap Code Developments

Code Authority Chosen—Identical with Board of Assn. American Soap and Glycerine Producers—Code Questions Answered

RECENT developments under the soap and glycerine code have included the appointment by General Hugh S. Johnson of the Board of Directors of the Association of American Soap and Glycerine Producers as the code authority for the industry. This Board is the one chosen at the annual meeting of the Association on December 14 at New York, which Association meeting was immediately followed by the first official meeting of the code enforcement body. The Code Authority held a second meeting on January 11. Those chosen for 1934 were:

H. D. Banta, Iowa Soap Co., Burlington, Iowa.
N. R. Clark, Swift & Co., Chicago.
S. Bayard Colgate, Colgate-Palmolive-Peet Co., Chicago.
F. A. Countway, Lever Brothers Co., Cambridge, Mass.
N. S. Dahl, John T. Stanley Co., New York.
R. R. Deupree, Procter & Gamble Co., Cincinnati.
G. A. Eastwood, Armour & Co., Chicago.
S. S. Fels, Fels & Company, Philadelphia.
I. Katz, J. Eavenson & Sons Co., Camden, N. J.
F. H. Merrill, Los Angeles Soap Co., Los Angeles.
W. C. Wollen, Olive Oil Soap Co., Paterson, N. J.
C. F. Young, Davies-Young Soap Co., Dayton, O.

Captain Joseph F. Battley, C. W. S., is official representative on the Code Authority of the NRA, and was present at the meeting.

Taking up the financing of code authority work, it was decided that for the start at least the code authority would depend upon the Association of American Soap & Glycerine Producers for finances, that the Association would keep a complete separate record of the code expenses, and that product divisions (potash soap group, soap powder group, private brand soapers, etc.) or geographical sections (for example, the Pacific Coast Soap Association) which set up their own organizations would be required to be self supporting except for such initial advice and assistance as may be requested by them from the national association. At an early date, it was determined to work out a plan on which to base a fair and equitable assessment for code enforcement expenses on all members of the industry.

As an example of the operation of geographical groups, the hearing on the proposed supplementary code for the Pacific Coast held Dec. 7 at San Francisco under the auspices of the Pacific Coast Association of Soap Manufacturers, was discussed. It is proposed in this instance that a geographical code under the basic code will cover California, Oregon, Washington, Idaho, Montana, Utah, Nevada, and Arizona. The section will be operated by the Pacific Coast Association, which is to be organized on a basis of voting and administration fair to all members whether local or national, large or small. The board of the Pacific Coast group is to be the planning and fair practice agency for that section. Its functions will be cooperation with the national code authority in administering the code in the eight states and also any supplementary product group codes, either national or local as they may apply to the Pacific Coast section. All companies selling nationally, including the Pacific Coast, will be asked to join the Pacific Coast Association. A number of leading national sellers have already done so.

To date, it is reported by Roscoe C. Edlund, general manager of the Association of American Soap and Glycerine Producers, over three hundred soap manufacturers have signed and filed assent to the soap and glycerine code. As it is the function of the code authority to see that all firms in the industry are familiar with the code, Mr. Edlund stated that questions from manufacturers on any feature of the code should be sent direct to the code authority at the office of the Association, 386 Fourth Avenue, New York. These will be submitted to the code authority at the first ensuing meeting for an official interpretation. All interpretations by the code authority are subject to review and approval by the NRA.

In regard to cost-finding procedure under the code, it was decided by that code authority that a committee be appointed by R. R. Deupree, chairman, to investigate the subject and recommend to the code authority what action, if any, it should take to comply with the cost provision of the code, which was originally designed to prevent selling below cost.

Official interpretations of questions submitted to the code authority and passed upon thus far, follow:

Where to Get Interpretations of Code

Question: Will you kindly advise to whom we should write for interpretation of the Soap and Glycerine Code?

Answer: The Code Authority, as the Code itself states, is the Board of Directors of our Association, plus not over three representatives of the Administration at Washington. The Administration is now represented with us through Captain Joseph F. Battley, aide to General C. C. Williams, NRA Division Administrator. Among the several responsibilities of the Code Authority, is that of interpreting the provisions of the Code in our industry with reference to their application in our industry. All questions of interpretation of the Code should be addressed to Horace C. Edlund, Manager of the Association of American Soap & Glycerine Producers, Inc., who is acting as executive officer of the Code Authority. Address 386 Fourth Ave., New York.

Classifications of Workers

Question: We have a night watchman who acts as night fireman, keeping only sufficient steam in the boiler to keep the pipes from freezing throughout the building. Can we continue to classify him as a night watchman and not limit his working hours to 40 a week?

Answer: If his work as fireman is incidental—that is, takes only a minor fraction of his time—it would be proper to classify him as a watchman. Otherwise, he must be classified as a fireman.

Working Time

Question: Is there any ruling that an "engineer's time" does not start until such time as the steam is turned on in the plant in the morning for the employees to start to work? In other words, if the engineer came into the building at 6:30 and the employees do not start to work until 7:30, would the engineer's time, as it must be figured in accordance with the code, not start until 7:30 in the morning? And would his time end in the evening at such time as the steam is turned off in the factory and the employees completed their day's work even though it might take the engineer a half hour to wash up and prepare to get ready to go home?

Answer: Any individual employee's working time must be figured from the time that he himself is required to be on the job, regardless of when other employees make their appearance, and even during rest periods when he is waiting to work. The question of time to wash up in preparing to go home is another matter, and is on the employee's own time, unless the establishment has previously regularly given such time to employees within regular working hours.

To Whom the Code Applies

Question: Toilet soap manufacturing is only a part of our business. We make flavoring extracts, toilet preparations, cosmetics, medical preparations, cleansers, insecticides, etc. Does the soap and glycerine code apply to us?

Answer: Yes. It applies to all soap and/or glycerine manufacturing. Manufacturers making products which come under different codes, must observe each such code governing those portions of their business to which such codes apply. The manufacturer cannot choose which code or codes he will work under; they apply without his choice to the products defined in each code. If the manufacturer feels that this works undue hardship he can appeal to the NRA giving the facts and asking for proper adjustment. (See answer to question below.) In the case above mentioned, the soap Code applies to the manufacturer of toilet soaps. Also, under the NRA ruling on our Code, this manufacturer can elect, if he pleases, to apply it to his cleansers.

Question: We make automotive chemicals, including automobile soap. This latter is a small part of our production. Must the soap code apply to our automobile soap making?

Answer: Yes. If under the circumstances the application of any provisions of the Code seems unjust, request can be made to the NRA for an exception to or exemption from such provisions. Such claims for exemption should be substantiated by sworn facts and should consent to making available all records, statistical data, and information which may be necessary in establishing a factual record upon which the NRA can take action. If such claim for exemption is made, it is requested that statement be included as to what substitute provision the claimant will be able to operate under.

Question: We only handle a small amount of liquid soaps. We are buying the bases in the paste or concentrated forms and add water to make the finished products ready for use.

Answer: This may be a borderline case. For tax purposes, this company is a manufacturer of liquid soap. Probably in similar fashion, the ultimate ruling must be that the Soap Code will apply to that portion of this company's operations which results in a finished soap product. These borderline cases, if taken up specifically with the Code Authority, may be permitted to await later decision if the company concerned is already an NRA Blue Eagle member operating under the President's Blanket Reemployment Agreement or under the code of some other industry.

Question: We compound a granulated soap powder. We also manufacture a paste which is used for the hands and also is used for cleaning cloths. Outside of these items and the jobbing of soap chips and cakes of soap, we do not handle or manufacture soap products. Our sales of the above products are small. The most of our business is in the chemical line.

Answer: So far as the manufacturing of soap powder and of the paste that is used for cleaning hands and cloths, the Code would apply.

Question: We do not make Soap or Glycerine. The only thing we do along this line is to produce possibly a half dozen drums of Scrubbing Soap per year by dissolving the base.

Answer: Technically the Code of Fair Competition for the Soap and Glycerine Manufacturing Industry applies to the manufacture of any amount of soap no matter how small. However, neither the NRA nor the Code Authority wish to be unduly technical. Further facts must be supplied as to the rest of the business and whether the company is operating under the NRA or other codes. If under the circumstances the application of any provision of the Code works a hardship, request can be made to NRA for an exception to or exemption from such provisions. Such claim for exemption should be substantiated by sworn facts and should consent to making available all records, statistical data, and information which may be necessary in establishing a factual record upon which the NRA can take action. If such claim for exemption is made, it is requested that statement be included as to what substitute provision the claimant will be able to operate under.

Question: Makers of what other products than soap, soap products, or glycerine can accept this Code?

Answer: In addition to household, industrial and toilet soap and soap products and glycerine, the Code provides that it may apply to detergents, cleansers or related industries when approved by the Administration at Washington. The Administration has already ruled that individual manufacturers who manufacture cleansers containing soap may accept the Code. A cleanser division is being petitioned for by leading cleanser manufacturers. The Administration has also ruled that manufacturers who make cleansers not containing soap can accept the Code provided that such manufacturers understand that if and when a supplemental or basic Code for their branch of the industry is approved, they must operate under such Code. Similar interpretations may be made by the NRA when groups of manufacturers making any type of product coming within this related field so request. For example, makers of metal polishes have already petitioned for a division; so have makers of silver polishes; while a similar petition for wax and furniture polish manufacturers is now in process of formation.

Manufacturers of ammonia, blueing, bleaches and cleaning compounds of various kinds are not at present individually eligible to accept the Code. If any considerable number of manufacturers in any of these groups desire to accept the Code, the Administration might possibly give a special ruling, but in any case it would be better if these groups become organized and make joint application for the establishment of a division under this Code. Acceptance of the Code should be mailed to the Code Authority, Soap and Glycerine Manufacturing Industry, 386 Fourth Avenue, New York, N. Y.

Article III, A. 1

Question: Are all $35.00 per week employees, regardless of what their duties are, exempt from hourly limitations? For example, can we hire an Engineer for our boiler room at $35.00 per week and work him 10 hours per day?

Answer: No. The amount paid per week is *not* the controlling factor in deciding who is exempt from the limitation of working hours to an average of 40 a week. The controlling factor is the type of responsibility the worker has. Technical employees, executives, employees on maintenance and repair work, watchmen, and outside salesmen are exempt from limitations on hours. *But* the exemption applies to those in managerial, supervisory, or Executive capacity, *only* when these workers receive $35.00 or more per week. In a similar way, the exemption applies to supervisors or to highly skilled workers in continuous processes where restriction of hours would unavoidably reduce production, *only* when these members receive $35.00 or more per week.

In the broad aspect of the matter, the only persons, regardless of amount paid, who are supposed to work more than forty hours per week are those whose work is of such a nature that the application of any such limitation of hours is impracticable. The broad intent is to apply the forty-hour limit as generally as possible, for the obvious purpose, of adding through the shortening of hours to the total number of workers employed.

(*Turn to Page 57*)

Trade Mark Use After Cancellation

The Procter & Gamble "Chipso" Case Explained

EVEN though registration of a trade-mark has been canceled by the U. S. Patent Office, the owner of the mark may continue to use it to identify his product, according to John C. Pemberton in a recent issue of *The New York Law Journal*. Mr. Pemberton takes as his case in point the recent cancellation of the "Chipso" mark for the well-known Procter & Gamble product.—J. L. Prescott Company versus Procter & Gamble Company, 19 U. S. Pat. Q., 75. Apparently the belief is general that the cancellation of the trade-mark means that P & G cannot use it hereafter in any manner.

How could this popular mark be canceled now—after having been registered in the Patent Office since April 12 of 1921, and after Procter & Gamble's very great expenditures in advertising soap chips, flakes and granulated soap under this mark? The reasons are as follows:

(1) A cancellation proceeding may be instituted in the Patent Office at any time; literally there is no time limit (Corning vs. Robertson, 65 F., 2d, 476).

(2) The Patent Office felt that "Chipso" was confusingly similar to the Prescott Company mark "Chase-O," which had been registered with them seven or eight years *before* Chipso, i.e., December 9, 1913, as opposed to April 12, 1921.

(3) The Patent Office felt the Prescott Company's preparation (called Chase-O) in crystal form for washing, cleansing and bleaching to be of the same class as Procter & Gamble's Chipso product—within the meaning of the trade-mark statutes, as lately construed by the United States Court of Customs and Patent Appeals.

Hence, these two marks applied to the same class of goods having been found confusingly similar—the younger mark, Chipso, had under the statutory law to be canceled in the Patent Office at the behest of the owners of the older registered trade-mark, "Chase-O."

By and large, this cancellation is considered unjust and highly technical. And so it would be if its results were actually as they are commonly thought. But they are not. For the Procter & Gamble Company can and will (so far as known) continue to use this well-known mark for its well-known products. This apparent flouting of the Patent Office tribunals is legally and commercially possible and frequent—because the right to *use* your trade-mark is one thing, and the right to *register* it is altogether and quite another.

The result of the foregoing decision is, then, simply this, viz:

(1) Procter & Gamble can no longer have its mark "Chipso" *registered* in the United States Patent Office—provided the latter's action is sustained by the appellate court sitting over it in such matters, i.e., the United States Court of Customs and Patent Appeals.

(2) Procter & Gamble can nonetheless *use* its mark "Chipso" and sell its goods so marked exactly as before.

The apparent anomaly and absurdity of one company owning a trade-mark in the Patent Office and another owning the same mark (or a confusingly similar one) outside the Patent Office is due to the fact that the Patent Office has no statutory jurisdiction to decide who may *use* trade-marks, but only jurisdiction to decide who may *register* marks with them.

Therefore, before the Prescott Company can prevent the Procter & Gamble Company's use of the mark "Chipso" it will have to conduct a successful suit in the United States District and Appellate courts (or, in the alternative they may elect to sue for an injunction in the *State* courts—Tiffany vs. Tiffany, 147, Misc., 679, 264 N. Y. S., 459). In other words, it must be established to the satisfaction of our judicial tribunals that our administrative tribunals in the Patent Office were correct in concluding that the public would likely be confused by the similarity of "Chase-O" and "Chipso" on the same class of products.

The same conflict of trade-mark ownership has recently arisen with regard to "Del Monte" coffee. One company has a trade-mark registration of the mark in the Patent Office on various food products, and has as well the right to use it in most of the United States, but not on coffee in California, Oregon, Washington, Montana, Nevada or Arizona, where another judicially and commercially reigns supreme (Tillman & Bendel vs. California Packing Corporation, 63 F., 2d, 498).

In the same way it has been conceded that although "Chicken of the Sea," as applied to young tuna fish, is the registered trade-mark of the Van Camp Sea Food Company, neither the Patent Office nor the Court of Customs and Patent Appeals (sitting over it) has jurisdiction to decide whether the Van Camp Sea Food Company has the right to the exclusive use of this or a similar trademark throughout the United States (Van Camp Sea Food Co. vs. Alex. B. Stewart Organization, 50 F., 2d, 976).

Accordingly, the United States Circuit Court of Appeals, in March, 1932, declined to hold that the Van Camp Company had the right to the exclusive use of "Chicken of the Sea" as a trade-mark (Van Camp Sea Food Co. vs. Cohn-Hopkins, 56 F., 2d, 797).

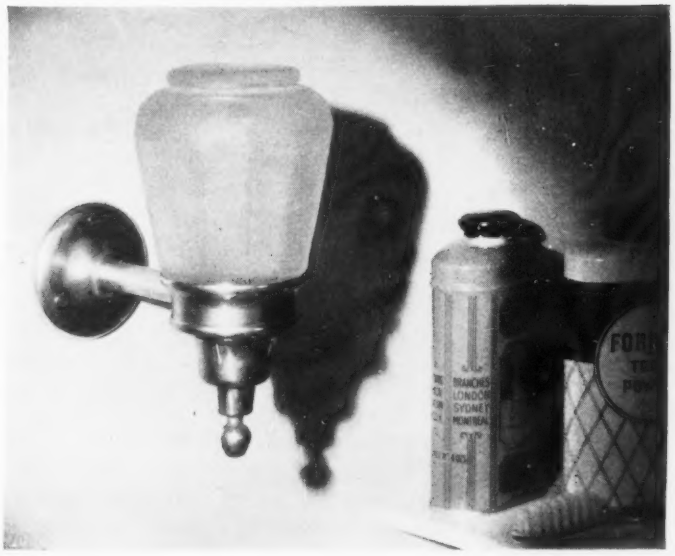
On the other hand, this same plaintiff, in September of this year, did secure an injunction (in the United States District Court, District of New Jersey) against another's "using the words Chicken of the Sea on canned tuna fish" on the ground of unfair competition. This injunction was awarded in spite of the fact that the court did not consider Chicken of the Sea "as a technical, valid,

(*Turn to Page* 33)

New Products

Heet Sc d-Titon

Koolox, a new product in the field of brushless shaving creams, comes to market packed in glass. The jar is by the Hazel-Atlas Glass Co., and the closure by the Phoenix Metal Cap Co.



A new liquid soap dispenser of the push-up type designed for use in the bathroom of the home. A simple design of chrome plated metal and frosted glass by the Clifton Chemical Co. of New York.

A shaving cream bowl by Lentheric, Inc., of moulded plastic compound. Moulded from Plaskon, a urea-formaldehyde resin, by Tech-Art Plastics Co. of New York.

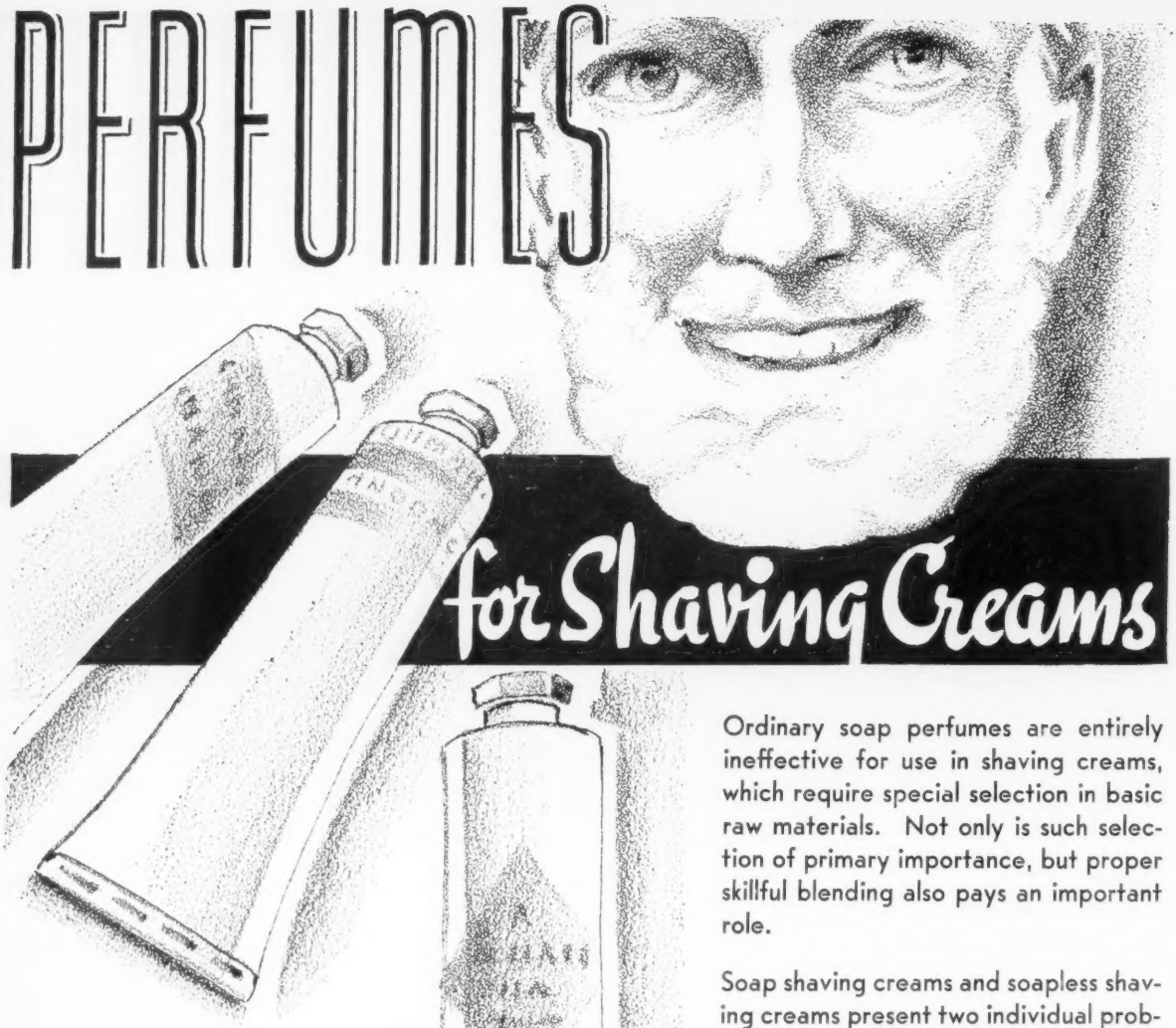
and Packages

Arctic Syntex, the new Colgate-Palmolive-Peet detergent, will not be sold at present in small retail packages, the ten-pound tin, shown here being the smallest package, ranging up to 50 pound and barrel sizes. Syntex is "a fatty acid derivative so altered as to prevent the carboxyl group from reaction," designed primarily for textile and other industrial uses.

Johnson & Johnson repackage their medicinal soap line by replacing the old paper wrappers with colorful cartons. The cartons are identical in design except for variations in the colors of the center circles bearing the names of the various soaps.

Lather Kreem by Krank of St. Paul is one of the brushless shaving creams being offered from the start by the manufacturer in both tube and jar, both in cartons of similar color scheme and design.

PERFUMES



for Shaving Creams

SELECTION of perfumes for your shaving cream may mean the difference between success and popular indifference. The 60 years experience of Fritzsche Brothers is ready to help you make your cream outstandingly attractive from a scientific perfume standpoint.

Ordinary soap perfumes are entirely ineffective for use in shaving creams, which require special selection in basic raw materials. Not only is such selection of primary importance, but proper skillful blending also pays an important role.

Soap shaving creams and soapless shaving creams present two individual problems, for they differ radically in their perfume requirements. Exhaustive study and experiments by our laboratories have created outstanding odors for both. The most popular perfumes are available for your selection, ranging from the customary floral odors such as Lilac and Rose to the more modern blends now in vogue, such as Lavender —French and English types—including Fougere and Cologne perfumes.

Fritzsche Brothers Inc.

Proprietors of
PARFUMERIES DE SEILLANS
Seillans, France

118 W. Ohio St.
Chicago

78-84 BEEKMAN ST.
NEW YORK

Sole Agents in U. S. and Canada for
SCHIMMEL & COMPANY
Miltitz (near Leipzig) Germany

Fritzsche Bros. of Canada, Ltd.
77-79 Jarvis St., Toronto

Trade Marks After Cancellation

(*From Page* 29)

registered trade-mark" (Van Camp Sea Food Co. vs. Packman Bros., 4 F., Supp. 522).

It is therefore doubtful whether the trade-mark "Chipso" has been materially, if at all, damaged by reason of the Patent Office cancellation thereof.

——o——

Lever to Check Imitators in Java

According to a recent London report, representatives of the Unilever combine are investigating the possibilities of establishing soap factories in the principal islands of the Dutch East Indies. One of the reasons for this enterprise seems to be that the Government luxury tax, which comes into operation in 1934, will decrease the sales of toilet soaps marketed by this combine, and increase those of cheaper Japanese brands. Another reason is, of course, the growing competition of the Japanese and their infringement of American and British trade marks, which it is practically impossible to prevent owing to the loop-holes in the local Dutch East Indian trade-mark law and the prohibitive cost of litigation to principals so far from home. Imitations of a world-known brand of British soap are reported sold in local Batavian shops to illiterate Javanese, who are unable to detect the difference, as the imitations are nearly identical in appearance with the genuine article.

It is announced from Amsterdam that the Unilever combine has formed an East Indian subsidiary with a capital of 2,000,000 florins, of which 1,500,000 florins is paid up. It is intended to manufacture soap and possibly at a later date margarine.

——o——

Russia to Increase Soap Output

The output of "raw soap" in Soviet Russia during 1933 is reported as approximately 15,000 tons. During the first half of 1933 the output fell far behind the requirement of the Second Five Year Plan. An investigation of conditions responsible for this failure revealed that production of soap was considered of distinctly secondary importance by the Soviet officials in charge. This condition was promptly rectified and production increased during the second half of 1933. The Second Five Year Plan calls for production of 21,900 tons during 1934, and recent orders from Moscow have directed the trusts to complete the program in regard to soap during the coming year on an exact level with other fundamental products.

——o——

Soapless shampoos made from sulfonated castor still retail the odor of the original castor oil, according to the December issue of *The Givaudanian*, published by Givaudan-Delawanna, Inc., New York. The odor while not very pronounced is tenacious and repugnant to most people. Givaudan are offering a new odor especially for this type of shampoo—Sulphol No. 1, of which about one per cent is required.

Hold Oil-Fat Excise Hearing

A hearing on the proposed excise tax on imported oils and fats, oil seeds, and floor stocks of these commodities, was held before the Ways and Means Committee of the House of Representatives in Washington on December 21. A. M. Loomis, secretary of the National Dairy Union, Fred Brenckman of the National Grange, W. F. Jensen of the American Association of Creamery Butter Manufacturers, W. H. Jaspon representing independent cotton oil crushers, and R. C. Buck representing the tallow renderers, testified in favor of a five-cent per pound excise tax. They held that a revenue of $40,000,000 per year would be derived from such a tax on imported oils and fats, and pointed to the taxes on crude oil, coal, lumber, and copper as precedents. The chief object of the tax, according to Mr. Loomis, was to aid American agriculture.

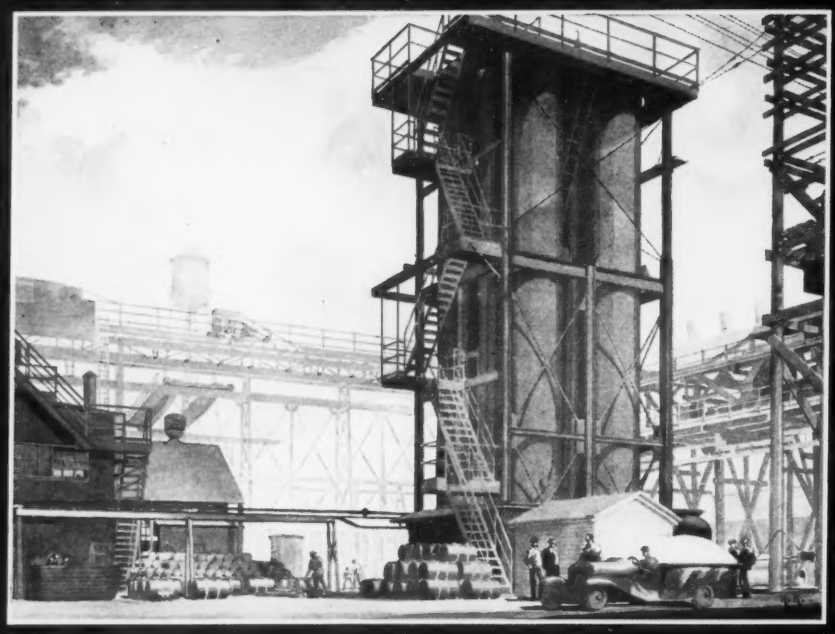
The tax was opposed by John B. Gordon of the Bureau of Raw Materials for American Vegetable Oils and Fats Industries, who appeared for consuming interests. He pointed out that only slightly over five per cent of all imported fats go into edible products and that the remainder go into industrial products, chiefly soap. The sharp rise in the price of soaps in this country following the imposition of such a tax would mean a flood of foreign soaps into this country, and the law would be circumvented in that way. He also stated that industrial users of fats in this country, utilize every pound they can obtain here and then import from abroad because there is an insufficient quantity of the right fats to fill their needs.

Mr. Loomis pointed out that the import of fats and oils had increased 45 per cent in the past year, that domestic stocks in storage had increased and that domestic prices had been completely demoralized as a consequence. He said that a small tax of a half or one cent would not be sufficient as foreign crushers would absorb this and still ship here at low prices.

The chairman of the Ways and Means Committee stated during the hearing that he would not support the demand of the dairy, rendering and other proponents of the tax unless he was assured that the Secretary of Agriculture would back up the request. It is believed that as the situation now stands in the Committee, it will not report out an excise tax of the size requested by the agricultural people, if any is reported out at all.

——o——

At a recent meeting of the Synthetic Organic Chemical Manufacturers' Association at the Chemists' Club, New York, August Merz, Calco Chemical Co., was elected president. Other officers include: vice-presidents, E. G. Robinson, of E. I. duPont de Nemours & Co., and F. G. Zinsser, of Zinsser & Co.; treasurer, Ralph E. Dorland, Dow Chemical Co.; secretary, Charles A. Mace, New York. Additional members of the board of governors are: E. A. Barnett, of John Campbell & Co.; G. Lee Camp, Monsanto Chemical Co., and A. L. Van Ameringen, Van Ameringen-Haebler, Inc.



A drawing made at one of our plants by D. Douglass

Aero Brand Tri Sodium Phosphate

Mixes easily because it is carefully cured and screened.

. . . is uniform in strength and quality.

. . . comes to you in paper-lined kegs, barrels or bags, as preferred by you.

. . . is *free flowing.*

535 FIFTH AVENUE **AMERICAN CYANAMID & CHEMICAL CORPORATION** NEW YORK, N. Y.

Soap Association Re-elects R. R. Deupree

At the annual meeting of the Association of American Soap and Glycerine Producers held in the Waldorf-Astoria, New York, December 14, R. R. Deupree, president of Procter & Gamble Co., was re-elected president of the association. Two new members were named to the board of directors: Samuel Fels, president of Fels & Co., succeeding Dr. J. S. Goldbaum of the same company who has had to retire from active duty because of illness; and N. R. Clark, Swift & Co., succeeding the late Robert M. Johnston of the same company. Other members of the board are: Homer D. Banta, Iowa Soap Co., Burlington, Ia.; S. Bayard Colgate, Colgate-Palmolive-Peet Co., Chicago; F. A. Countway, Lever Brothers Co., Cambridge; N. S. Dahl, John T. Stanley Co., New York; R. R. Deupree, Procter & Gamble Co., Cincinnati; G. A. Eastwood, Armour & Co., Chicago; I. Katz, J. Eavenson & Sons Co., Camden; F. H. Merrell, Los Angeles Soap Co., Los Angeles; W. C. Wollen, Olive Oil Soap Co., Paterson, N. J.; and C. F. Young, Davies-Young Soap Co., Dayton.

The report of the nominating committee was presented by F. A. Countway, Lever Bros. Co., who said in part: "These men are representative of the industry. They have had the task of preparing, and of seeing through at Washington, the code of fair competition for the Soap and Glycerine Manufacturing Industry, and are now entering upon their responsibilities as members of the Code Authority, which, under the provisions of the code, is the board of directors of the association. It seems eminently fitting that they should be re-elected to proceed with this important task upon which they are just beginning."

—o—

Perfumers Materials Co. has been formed to market essential oils, aromatic chemicals, perfuming compounds, etc. The company is located at 136 Liberty St., N. Y.

—o—

Dodge & Olcott Co., New York, has recently issued a revised catalog and price list for January-February, 1934.

Palmolive Becomes 5c Seller

Effective January 8, the price of Palmolive toilet soap was reduced by the Colgate-Palmolive-Peet Co. to bring it into the class of five-cent sellers. The new price is for the regulation bar of Palmolive. It was formerly designed as a ten-cent soap, although usually selling at three and four for twenty-five cents retail. The new case price to dealers is understood to range from $5.30 per gross upward according to quantity.

—o—

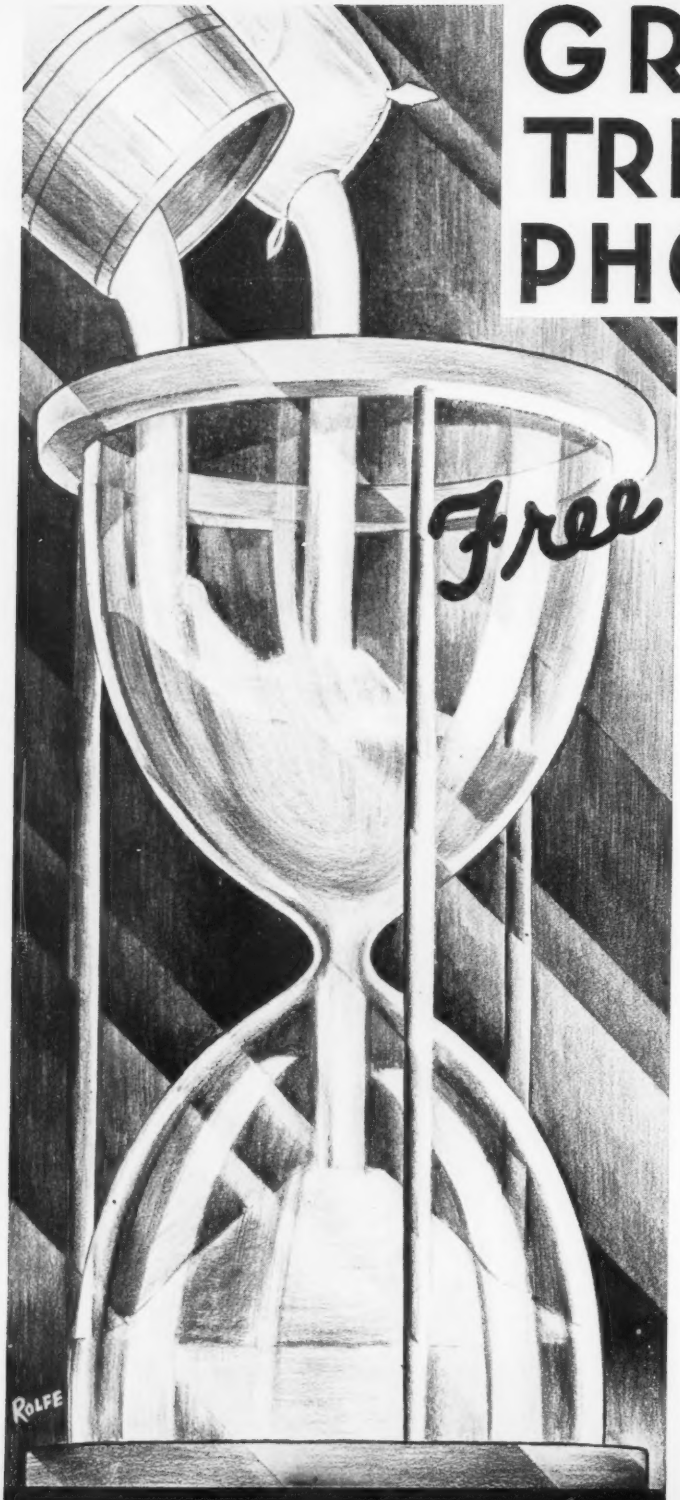
Syntex Introduced by C-P-P Co.

A new product, offered solely for industrial and laundry use, has just been announced by Colgate-Palmolive-Peet Company under the name "Arctic Syntex." Unlike Procter & Gamble Company's new product, "Dreft," the new C-P-P product will not be offered to the household market. In describing the new product, the makers say that it retains all the desirable qualities of soap and at the same time is stable to metal salts. The method of production is described as "altering a fatty oil or fatty acid in such a manner as to prevent the carboxyl group from reaction." "Syntex" is offered in two types, "Syntex A" and "Syntex T," each being available in paste and powder form. In addition, "Syntex A" is offered in the form of an extra concentrated powder. The new product is available in ten, twenty and fifty-pound containers, as well as in larger lots.

—o—

Hammond Paint & Chemical Co., Beacon, N. Y., has announced a new glossy-drying floor wax. According to D. B. Faloon, president of the company, the new wax contains 16 per cent solids, the entire wax content being solely No. 1 carnauba. This, he says, compares with 11 or 12 per cent solids in most waxes. The new wax dries to a bright lustre, is not slippery, and gives greater durability, because of this, he states. It is being sold only in bulk to the jobbing trade.

Exterior view of the new plant of Scholler Brothers, Inc., at Ambar and Westmoreland Streets, Philadelphia. The company is a well known manufacturer of textile soaps, softeners, and specialties. Fred C. Scholler is president, A. Scholler is vice-president, and Henry H. Scholler, secretary and treasurer.



GRASSELLI TRI-SODIUM PHOSPHATE

Free Flowing

THE GRASSELLI CHEMICAL CO.
INCORPORATED
CLEVELAND OHIO

New York and Export Office: 350 Fifth Avenue

Albany	Charlotte	Milwaukee	Pittsburgh
Birmingham	Chicago	New Haven	St. Louis
Boston	Cincinnati	New Orleans	St. Paul
	Detroit	Philadelphia	

SAN FRANCISCO, 584 Mission St. LOS ANGELES, 2260 E. 15th St.
Represented in Canada by CANADIAN INDUSTRIES, LTD.
Acids and General Chemicals Division—Montreal and Toronto

GRASSELLI GRADE

A Standard Held High for 95 Years

CHICAGO TRADE NOTES

E. M. Gilmore has been appointed eastern sales manager and A. E. Taylor has been appointed western sales manager for Colgate-Palmolive-Peet Co. effective immediately. Both Mr. Gilmore and Mr. Taylor have been connected with C-P-P Co. for some time and have worked up to their present positions.

—o—

At the annual business meeting of the Chicago Perfumery, Soap and Extract Association December 28th. Walter H. Jelly of Walter H. Jelly Co., was elected president. J. H. Helfrich, Helfrich Laboratories was elected vice-president and W. Kedzie Teller, Columbus Laboratories was elected secretary for 1934.

—o—

The annual sales meeting of U. S. Sanitary Specialties Co. took place December 28th at the LaSalle Hotel, Chicago. Over thirty representatives attended the morning and afternoon meetings and the dinner which followed.

—o—

Knickerbocker Hotel was the scene December 14th. of the Christmas party held by the Chicago Perfumery. Soap and Extract Association. Dinner was followed by six acts of entertainment and dancing with music of Herbie Mintz's orchestra. Over two hundred couples attended.

—o—

Chicago Drug and Chemical Association's annual banquet December 21st at the Stevens Hotel drew the biggest crowd, 254 persons, in the history of the Association. All members and guests attending reported having a very enjoyable evening.

—o—

Dr. E. G. Thomssen, chief chemist and soap expert for the J. R. Watkins Co., arrived in Chicago from an eastern business trip in time to attend the Chicago Perfumery, Soap and Extract Association party in company with Mr. and Mrs. George Wrisley and Mr. and Mrs. Dudley F. Lum.

—o—

The annual party for the employees of U. S. Sanitary Specialties Co., Chicago, was held at the company's general offices December 29th. Sixty-seven employees pronounced the evening a success. A turkey dinner was served, followed by dancing.

—o—

Fitzpatrick Bros. Co., Chicago soapers, have moved into their new office building adjoining the plant. The new building which is of the latest style construction, is equipped with modern air conditioning.

—o—

The offices of A. C. Drury Co., Chicago, have been moved to larger quarters at 219 E. North Water St. The new quarters in addition to providing more room for storage purposes have facilities for direct rail and water service.

—o—

Wilson & Bennett Mfg. Co., Chicago, is introducing a new full open-head barrel equipped with an outside vertical-action locking ring. The new container is said by the maker to combine all the desirable features of a full open-head container.

—o—

Michiganders Hold Xmas Party

The first annual Christmas Party of the Michigan Cosmetic and Extract Association was held on December 14 at the Marine Grill in Detroit. It was an informal party and was combined with a special Ladies Night. R. P. Cole of Eaton-Clarke Co. was in charge as chairman of the committee on arrangements. During dinner, there was a floor show and dancing. Dancing went on during the evening and a second floor show was put on at 12:30 A. M. During the evening, floor prizes were awarded. They were donated by Elizabeth Arden, Ltd., Prince Metchabelli Perfumery, Inc., Coty, Inc., Richard Hudnut, Inc., Eaton-Clarke Co., De Vilbiss Co., Nelson Baker Co., T. D. Shea Co., Hazel Atlas Glass Co., Tivoli Brewing Co., Felton Chemical Co., Frank W. Kerr, and Fred Sanders. Souvenir boxes were distributed which contained donations from Mark W. Allen Co., Frederick Stearns & Co., Beauty Counselors, Inc., Anchor Cap and Closure Corp., Armstrong Cork Co., Owens Illinois Glass Co., Givaudan-Delawanna, Inc., Harry Holand & Son, Compagnie Parento, Inc., P. R. Dreyer, Inc., Armand Co., Johnson & Johnson, Kolynos Co., Fairystone Labs., Western Co., Lever Brothers Co., J. B. Williams Co., Mennen Co., F. W. Fitch Co., Bauer & Black, William Wrigley, Jr. Co., C. E. Jamieson Co., Lewis Med. Co., Chas. H. Phillips Chem. Co., William James Labs., Jane Edwards, Whitaker Paper Co., G. H. Sherman, M. D. Co., Hinde & Dauch Paper Co. Those in charge of the souvenir boxes were M. G. deNavarre, W. I. McDonald, and Frank Douglass.

—o—

Cincinnati Soap Co. Moves Offices

The executive offices of Cincinnati Soap Co. have recently been moved from Winton Place to downtown quarters in the new Bell Telephone Bldg., 7th and Elm Sts., Cincinnati. The new location will provide greatly needed additional space as it is more than double the size of the old quarters. In addition, the sound-proofed ceilings and walls, air-conditioned system, and other modern conveniences will contribute to improved efficiency. The new office will be connected by private line with the company's manufacturing plants located at Dayton. The removal is necessitated by growth in Cincinnati Soap Company's business which has caused the old quarters to be inadequate due to the continually increasing office force.

—o—

Atlantic Chemical Co., New York, has introduced Colowax, a new type of polish, to "5 and 10" counters.

SOAP presents a *perfuming problem* of a special character. To handle it successfully requires intimate knowledge of soap manufacturing and, above all, experience with soap perfumes.

We have done a considerable amount of work along those lines, and offer several series of soap perfumes of *tried worth*.

Send for *smelling samples*.

Almond	Lemon
Almond—Rose	Lilac
Almond—Cocoa	Lily
Antiseptic Odor	Mint
Bouquets of great variety	Narcissus
Carnation	Orange
Cedar	Oriental
Citrella	Patchouly
Cologne	Pine
Fougere	Pineapple
Gardenia	Rose
Geranium	Sandalwood
Girella	Sweet Pea
Jasmin	Verbena
Lavender	Violet

Also many odors for shampoo and liquid soap

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
438 West 48th St., Los Angeles
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

PERSONAL AND IMPERSONAL

Laundrene Soap Corp., Seattle, has been organized by Robert W. Neal and Henry J. Duffy who for a number of years have operated a company of similar name. Factory space has been engaged and a sales campaign started. W. C. Opdycke is sales manager and Alexander Duffy, secretary. Mr. Neal heads the concern and Mr. Duffy is vice-president.

—o—

Brillo Manufacturing Co., Inc., for the nine months ended September 30 earned a net profit of $112,427, equivalent, after dividend requirements, to 45 cents a share on 160,000 no-par common shares. This compares with a net of $88,085, or 30 cents a common share, in the corresponding period of 1932.

—o—

C. G. Fox of Fels & Co., Philadelphia, has taken over the duties of Dr. J. S. Goldbaum, company executive and well-known soap industry figure, while Dr. Goldbaum is away from the office on an extended vacation to regain his health. He has been in ill health for some time.

—o—

Miller Soap Products, Inc., Los Angeles, have recently established a stop price on their principal product, Gold Medal soap powder. A. Blumberg heads the corporation, with C. A. Herrmann as sales manager. Offices are located at 1928 Atlantic St.

—o—

Citrus Soap Co., San Diego, Calif., has succeeded in increasing its business 100 per cent as a result of an intensive radio advertising and sampling campaign, according to an article appearing in the January number of *Printers' Ink Monthly*. Citrus granulated soap which was featured in the campaign has now become the leading item in the company's line, replacing Citrus washing powder as the best seller.

—o—

Frank Factor, in charge of manufacturing for Max Factor Co. of Hollywood, Calif., accompanied by Dr. A. T. Frascati, perfuming chemist for the company, spent ten days in New York late in December investigating new developments in materials and equipment for the cosmetic trade.

—o—

Beaver-Remmers-Graham Co., Cincinnati, has embarked on an advertising campaign featuring its well-known product, Grandpa's Wonder Pine Tar Soap. Farm publications will be used, reaching over 2,000,000 homes. Frederic W. Ziv, Inc., is the advertising agent.

A new general-purpose metal cleaning material has recently been placed on the market by Trojan Products & Mfg. Co., Chicago. This cleaner, it is stated, can be effectively used on steel, copper, brass, die cast metal, aluminum, etc.

—o—

The December issue of *Soap Chatter*, house organ of Iowa Soap Co., Burlington, Iowa, carries a report of the company's recent jobbers' salesmen's contest. F. H. Brown, salesman for Carroll, Brough & Robinson, wholesale grocers of Oklahoma City, Okla., was awarded first prize in the contest—a check for $50.00—for submitting the best letter explaining "How Can I Increase My Sales of Iowa Soap Company Products?"

—o—

Mrs. Emilie A. Ittner, wife of Martin H. Ittner, chief chemist for the Colgate-Palmolive-Peet Company, died recently in Paterson, N. J.

—o—

Dermakelp Corp., Seattle, has recently added to its line of soaps and washing powders a new soap powder sold under the name Dermakelp. It is packaged in 40-ounce boxes and distributed through the grocery trade.

—o—

The Bon Ami Corporation has declared extra dividends of $1 and of 50 cents a share on its class A and class B shares respectively, both being payable December 31 to stock of record December 14. The company paid an extra dividend of 50 cents a share on the class B stock on January 17, 1933, which makes a total of $1 a share extra on that class for the year, or the same as the total for the class A shares. An extra dividend of $1 a share has been paid by the company on both classes for the last three years.

—o—

James E. Wilson, vice-president of The Larkin Company, Buffalo, has been appointed chairman of the postal affairs committee of the Buffalo Chamber of Commerce.

—o—

Wilson & Co., Chicago, has just paid a dividend of $1.75 a share on its 7 per cent preferred stock. This is the first dividend declared since January 2, 1931, when the same amount was paid.

—o—

The Pompeian Olive Oil Corporation, Baltimore, which some months ago acquired the plant of the Van Camp Packing Company there, has moved to 4201 Philadelphia road. Samuel H. Hoffberger is president of the company, and Henry C. Peachey is manager.

COLUMBIA

SODA ASH
•
CAUSTIC SODA
•
MODIFIED SODAS
•
CALCIUM CHLORIDE

☆

THE COLUMBIA ALKALI CORPORATION

Executive Sales Offices

EMPIRE STATE BUILDING, NEW YORK

Branch Sales Offices

BARBERTON, OHIO

431 - 451 ST. CLAIR ST.
CHICAGO

CAREW TOWER
CINCINNATI

SANTA FÉ TERMINAL BLDG.
DALLAS

Plant at BARBERTON, OHIO

"The Advantage of Special Cleansers for Dairy Use" is the title of a booklet on cleansers put out by Solvay Sales Corporation, New York. Such questions as how to choose cleansers, testing alkali cleansing solution, etc., are discussed.

—o—

Procter & Gamble Co. announce the transfer of L. L. Dunlap to Seattle, Wash., where he will have charge of sales in that territory. Mr. Dunlap was formerly sales supervisor of the San Diego office.

—o—

A general reorganization of the executive department of National Oil Products Company, Harrison, N. J., has been announced by C. P. Gulick, president of the company, effective January 1st. J. H. Barton has been made general manager of the company, G. D. Davis has been appointed general sales manager, and Ralph Wechsler has been relieved of many commercial duties to permit him to concentrate on his work as technical director.

—o—

Allen B. Wrisley Co., Chicago, has recently opened the new addition to its plant at 6801 West 65th Street which will be used chiefly for drying, flaking and packing. The new unit adds to the plant some 25,000 square feet of space.

—o—

Royal Soap Co. has been organized in Kansas City, Mo., by Dr. D. H. Reeder to manufacture laundry and toilet soaps. Offices are located at 505 West Fifth Street.

—o—

Import Soap Co., Seattle, Wash., has recently taken quarters at 2718 Elliott Ave.

—o—

Procter & Gamble Co. has recently introduced a soapless lather shampoo for sale through the retail drug trade.

—o—

G. A. Pfeiffer, president of Richard Hudnut, New York, returned from South America on the *S. S. Santa Barbara* recently after a nine weeks' trip. While in Rio de Janeiro and Buenos Aires Mr. Pfeiffer inspected the company's factories there.

—o—

Dr. Robert E. Rose, E. I. duPont de Nemours & Co., was re-elected chairman of the American Association of Textile Chemists and Colorists at the recent annual meeting held at the Chemist Club, New York.

—o—

The American Dental Association is withholding its seal of approval from Squibb Dental cream because the maker, E. R. Squibb & Sons, advertises the dentifrice with therapeutic claims. Pebeco tooth paste has also been omitted from the accepted list because of reversion to a type of advertising which the maker had agreed to abandon.

J. B. Williams Co. is now operating its new model plant at Ville La Salle, Quebec, near Montreal, to supply the entire Canadian and British Empire markets. The plant is located on the St. Lawrence River with dock facilities on the river. Thomas Haughland is manager of the plant and James D. Dunn, general sales manager for Canada. The company was founded in 1840 at Glastonbury, Conn., which is still its home office.

—o—

Dr. Alexander Schwarcmann, in charge of the research department of Spencer Kellogg & Sons, Inc., Buffalo, has been added to the board of directors of the corporation. Other members of the board who have been re-elected are Howard Kellogg, Howard Kellogg, Jr., Frank C. Trubee and J. L. Wickstead.

—o—

A conference of Procter & Gamble salesmen from the Baltimore district was held at the Lord Baltimore Hotel, January 2, under the direction of Richard H. Randall, general manager of the Baltimore office. Plans for 1934 activities were outlined and selling methods and policies were discussed in the light of decisions made at the recent national sales meeting in Cincinnati.

—o—

The ninth annual dinner of the drug, chemical and allied trades section of the New York Board of Trade has been scheduled for March 8 at the Waldorf-Astoria, New York. Joseph Huisking, of Charles L. Huisking & Co.; Francis McDonough, of the New York Quinine & Chemical Works, and Ray C. Schlotterer, secretary of the section, have charge of the general arrangements.

—o—

Carbona Products Co., New York, has two new shoe polishes put up in tubes. One is for brown and tan leathers, the other for black.

—o—

A. Maschmeijer, Jr., Inc., essential oils, New York, is now located in new quarters at 43 West 16th Street.

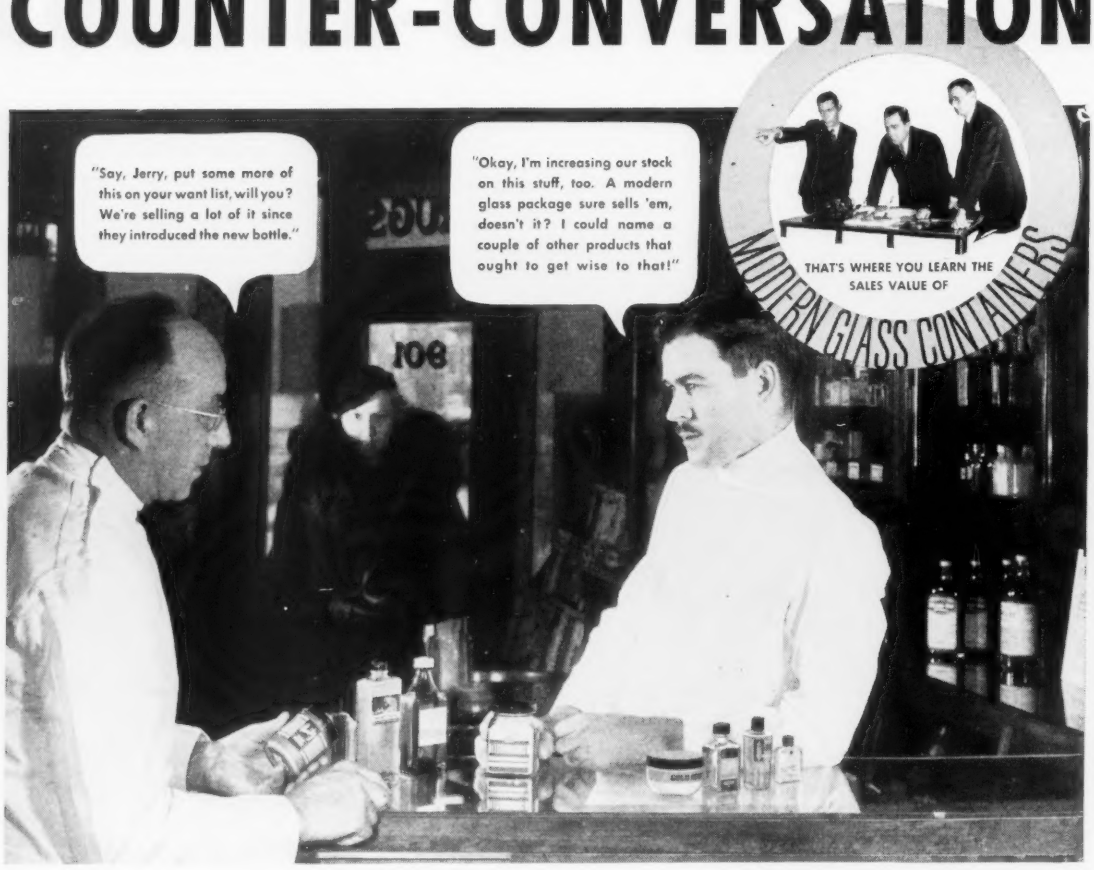
—o—

Opportunities for Export

The following opportunities for export of American soaps and allied products have come to the Bureau of Foreign and Domestic Commerce, Washington, D. C. American manufacturers can secure the full details of the inquiries by communicating with the Bureau, care of the Department of Commerce. Be sure to mention the number of Foreign Trade Opportunity in writing.

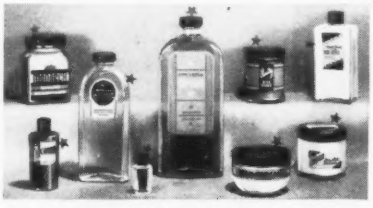
6672	Soaps, toilet, laundry and powdered	Panama	Agency or purchase
6768	Toilet soaps	Sumatra	Agency or purchase
6769	Dentifrices	Ceylon	Agency
6767	Soap-making chemicals...	Costa Rica	Agency or purchase
6856	Soaps, laundry and toilet..	India	Agency or purchase
6869	Toilet soaps	Denmark	Agency

"LISTEN TO THE "COUNTER-CONVERSATION"


"Say, Jerry, put some more of this on your want list, will you? We're selling a lot of it since they introduced the new bottle."
"Okay, I'm increasing our stock on this stuff, too. A modern glass package sure sells 'em, doesn't it? I could name a couple of other products that ought to get wise to that!"
THAT'S WHERE YOU LEARN THE SALES VALUE OF
MODERN GLASS CONTAINERS

● Retail sales prove that products packed in glass *sell faster* than similar products put up in any other way. The same sound index shows that, of two products packed in glass, the one in a modernized container *sells faster* than the one which clings to an outmoded design. Furthermore, a sales analysis of products recently placed on the market will give convincing evidence of the fact that those introduced in glass *sell faster* than others and establish themselves much more quickly with both the public and the retail trade.

How about a stock container like this ★



The *Onlzed* line includes a multitude of attractive and practical stock shapes and sizes for cosmetics and proprietaries. Styles are designed to be used with modern closures that afford permanent protection to the contents. They are easily opened and simply and efficiently resealed. Consult with Owens-Illinois. Investigate the new glass packaging ideas that have been made possible by constantly improved methods of manufacture. Send today for samples and complete information. Owens-Illinois Glass Company, Toledo, O.

Onlzed PHARMACEUTICAL AND PROPRIETARY WARE

Picture your product in a more salable package

Owens-Illinois

RECORD OF TRADE-MARKS

The following trade-marks were published in the December issue of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

ARCTIC SYNTEX—First word in solid, second in outline letters, describing detergents. Filed by Colgate-Palmolive-Peet Co., Chicago, Oct. 13, 1933. Claims use since Aug. 21, 1933.

SOFOS—This in solid letters describing cleanser. Filed by Mathieson Alkali Works, New York, Oct. 19, 1933. Claims use since Oct. 11, 1933.

STAPHYLODERM—This in solid letters describing antiseptic. Filed by Wm. S. Merrell Co., Cincinnati, Oct. 6, 1933. Claims use since July 21, 1933.

COLIDERM—This in solid letters describing antiseptic. Filed by Wm. S. Merrell Co., Cincinnati, Oct. 6, 1933. Claims use since July 21, 1933.

SALZEM—This in solid letters describing insecticide. Filed by Atlantic Coast Laboratories, Burlington, N. J., Oct. 11, 1933. Claims use since Dec. 10, 1932.

SHAMPOODLE—This in solid letters describing soaps. Filed by Maurice Marks, New York, Mar. 23, 1933. Claims use since Feb. 23, 1933.

DASON—This in solid letters against sunburst background, describing metal polish. Filed by Dason Products Co., Washington, D. C., Oct. 17, 1933. Claims use since Nov. 3, 1931.

TARZAN—This in solid letters describing soap and shoe dressings. Filed by Edgar Rice Burrough, Inc., Tarzana, Calif., Oct. 19, 1933. Claims use since July 22, 1933.

EVENING IN PARIS—This in script describing toilet soap. Filed by Bourjois, Inc., New York, Nov. 1, 1933. Claims use since Feb. 15, 1932.

N. R. L.—This in solid letters describing antiseptic. Filed by Natl. Research Labs., Los Angeles, Apr. 19, 1933. Claims use since Mar. 4, 1931.

CERTISEAL—This in outline letters on shield describing toothpaste. Filed by J. R. Brundage, Inc., New York, Oct. 11, 1933. Claims use since Aug. 28, 1933.

SUPERCLEAN—This in broken letters describing disinfectant. Filed by Charles W. Berg Labs., Philadelphia, Oct. 17, 1933. Claims use since Oct. 15, 1918.

ONE-SPOT—This in solid letters describing insecticide. Filed by Kennel Gardens, Inc., Elkridge, Md., Oct. 18, 1933. Claims use since July 15, 1933.

SHINES ALL—This on reverse plate describing shoe and metal polishes. Filed by Excello Specialty Co., Brooklyn, Sept. 6, 1933. Claims use since July 1, 1933.

NIRAX—This in solid letters describing hand cleanser. Filed by Chemical Utilities Co., New York, Sept. 22, 1933. Claims use since July 15, 1933.

LLOYD—This in solid letters describing soap. Filed by Lloyd Bros., Pharmacists, Inc., Cincinnati, Nov. 10, 1933. Claims use since 1891.

WASHALINA—This in outlined letters describing washing compound. Filed by Washalina Chemical Co., Nanticoke, Pa., June 23, 1932. Claims use since Jan. 1, 1932.

A C C—These letters on diamond shaped reverse plate describing disinfectant, germicide, insecticide, etc. Filed by Atlantic Chemical Co., Brooklyn, Oct. 3, 1933. Claims use since May 1, 1930.

—o—

Trade Marks Granted

308,349. Soap. J. R. Watkins Co., Winona, Minn. Filed August 9, 1933. Serial No. 340,562. Published September 19, 1933. Class 4.

308,352. Insecticides. Pure-Ole-Products, Washington, D. C. Filed July 28, 1933. Serial No. 340,200. Published September 26, 1933. Class 6.

308,359. Soap. Easson Soap, Inc., Portland. Filed August 7, 1933. Serial No. 340,471. Published September 19, 1933. Class 4.

308,366. Soap. Colgate-Palmolive-Peet Co., Chicago. Filed July 28, 1933. Serial No. 340,186. Published September 19, 1933. Class 4.

308,369. Shaving Cream. J. B. Williams Co., Glastonbury, Conn. Filed July 26, 1933. Serial No. 340,141. Published September 19, 1933. Class 4.

308,371. Insecticide. Bonide Chemical Co., Utica,

N. Y. Filed July 12, 1933. Serial No. 339,665. Published September 12, 1933. Class 6.

308,379. Insecticides. Pennsylvania Salt Manufacturing Co., Philadelphia. Filed July 19, 1933. Serial No. 339,910. Published September 19, 1933. Class 6.

308,412. Moth Destroyer and Preventative. Cenol Co., Chicago. Filed July 7, 1933. Serial No. 339,551. Published September 19, 1933. Class 6.

308,416. Preparation for Exterminating Bugs. Ruin Company, Binghamton, N. Y. Filed July 1, 1933. Serial No. 339,438. Published September 19, 1933. Class 6.

308,431. Tooth Paste. Dr. Hyman's Dental Products Co., Philadelphia. Filed August 9, 1933. Serial No. 340,537. Published September 19, 1933. Class 6.

308,436. Moth Extermination Preparation. Steuben Chemical Co., Boston. Filed August 14, 1933. Serial No. 340,699. Published September 26, 1933. Class 6.

308,443. Antiseptic. Merrell-Saunders, Ltd., Los Angeles. Filed April 19, 1933. Serial No. 336,948. Published September 12, 1933. Class 6.

308,456. Powdered Soap. National Soap Co., Burlington, Iowa. Filed February 3, 1933. Serial No. 334,607. Published September 19, 1933. Class 4.

308,470. Dental Cream. Trade Laboratories, Inc., Newark. Filed June 20, 1933. Serial No. 339,048. Published September 19, 1933. Class 6.

308,480. Metal polish. Wizard, Inc., Chicago. Filed June 22, 1933. Serial No. 339,136. Published September 26, 1933. Class 4.

308,494. Insecticide. Midway Chemical Co., Chicago. Filed July 8, 1933. Serial No. 339,586. Published September 19, 1933. Class 6.

308,503. Cleaner. Lainett, Inc., New York. Filed July 22, 1933. Serial No. 340,017. Published September 26, 1933. Class 4.

308,505. Insect and Rodent Exterminators. Midway Chemical Co., Chicago. Filed July 24, 1933. Serial No. 340,050. Published September 19, 1933. Class 6.

308,521. Cleaning Fluid. Forbes and Juilly, San Francisco. Filed May 8, 1933. Serial No. 337,605. Published September 19, 1933. Class 4.

308,537. Insecticidal and Fumigating Sprays. Scientific Compounds, Inc., Seattle. Filed May 4, 1933. Serial No. 337,488. Published September 19, 1933. Class 6.

308,549. Shaving Soap. Probak Corp., Jersey City, N. J. Filed October 13, 1930. Serial No. 306,712. Published September 19, 1933. Class 4.

308,572. Soap. Los Angeles Soap Co., Los Angeles. Filed August 18, 1933. Serial No. 340,799. Published October 3, 1933. Class 4.

308,577. Toilet Soap. Iowa Soap Co., Burlington, Iowa. Filed December 2, 1932. Serial No. 332,693. Published February 14, 1933. Class 4.

308,710. Liquid Household Insecticide. Blue Star Insecticide Co., Hasbrouck Heights, N. J. Filed September 2, 1933. Serial No. 341,286. Published October 10, 1933. Class 6.

308,803. Cleaning Compound. Zolvit Co., Springville, Ala. Filed June 28, 1933. Serial No. 339,333. Published October 3, 1933. Class 4.

308,845. Insecticides, Germicides, Antiseptics, Disinfectants. Dow Chemical Co., Midland, Mich. Filed May 16, 1933. Serial No. 337,879. Published October 3, 1933. Class 6.

308,870. Insecticide and Cattle Spray. Baldwin Laboratories, Saegerstown, Pa. Filed March 28, 1933. Serial No. 336,150. Published September 26, 1933. Class 6.

308,873. Bath Salts, Bleaching Compounds, etc. Sargeant Acnoid Pharmaceutical Co., East Orange, N. J. Filed February 14, 1933. Serial No. 334,968. Published September 26, 1933. Class 6.

308,938. Liquid Insecticide. United Chemical Co., Kansas City. Filed August 4, 1933. Serial No. 340,420. Published October 10, 1933. Class 6.

308,942. Insecticides. Nyda R. Stevens, Atlanta. Filed July 25, 1933. Serial No. 340,096. Published October 10, 1933. Class 6.

308,989. Automobile and Furniture Polish. Phillips Petroleum Co., Bartlesville, Okla. Filed December 7, 1932. Serial No. 332,856. Published October 10, 1933. Class 16.

308,993. Soap. J. T. Robertson Co., Syracuse. Filed July 11, 1932. Serial No. 328,718. Published October 17, 1933. Class 4.

309,002. Liquid Germicide. Clotworthy Laboratories, Miami. Filed June 13, 1933. Serial No. 338,817. Published October 17, 1933. Class 6.

309,006. Soap. Harmony of Boston, Boston. Filed June 7, 1933. Serial No. 338,625. Published October 17, 1933. Class 4.

—o—

Private Brand Code Hearing Jan. 25

A public hearing on the proposed supplemental code regulating trade practices for private brand toilet soaps, termed the Non-Advertised and Special Brand Toilet Soaps Manufacturing Industry, will be held on January 25 at 10:00 A. M. in the Gridiron Room of the Willard Hotel, Washington. Dr. Charles H. Herty, deputy administrator, will preside. The proposed supplement to the basic code of the soap and glycerine industry is being submitted by the Associated Manufacturers of Non-Advertised and Special Brand Toilet Soaps, which claims to represent 89 per cent of the industry. Albert Steiner of the Cincinnati Soap Co., Cincinnati, is head of the Association. All provisions of the basic code as approved by the president are incorporated by reference in the proposed supplemental code, and it is provided that in the event of conflict of provisions of the two codes, those of the basic code shall prevail. Copies of the proposed private brand trade practice code are available at the offices of the NRA, Room 3316, Department of Commerce Building, Washington. Dr. Herty, the deputy administrator in charge of the hearing, is the former president of the Synthetic Organic Chemical Manufacturers Association.

Foragers Hold 36th Annual Dinner

The Foragers, one of the oldest organizations in the soap, cosmetic, drug and allied industries, held its 36th annual dinner at the Hotel Astor, New York, on Saturday evening, January 6. About 125 members and guests attended, the membership being composed of men in the sales and of the businesses in New York. Fred J. Griffiths, president of the Pennsylvania Drug Co. was the guest of honor for the evening. Frank Graham, New York divisional sales manager for the DeVilbiss Co., was in charge of arrangements and acted as toastmaster. His reading of a series of telegrams of good wishes to Mr. Griffiths was one of the high lights of the evening. He handled the jovial, and sometimes enthusiastic body of salesmen, with rare skill. Several quartets of members added their part to the enthusiasm of the evening, aided and abetted by the well-known Mr. Martini at the pre-dinner reception, and by numerous and sundry Sauternes during dinner. A floor show concluded the evening for at least part of the diners. Joseph B. Gartlan of Harper Method, Inc., is president of the Society. Martin Schulties of Hewitt Soap acted as general receptionist and mixer-up. Several of the old-timers who have not missed a banquet of the society since its first one in 1898, were present. At the conclusion, the dinner was voted a huge success by all who could still vote.

—o—

Proposed construction of a new $7,000,000 alkali plant at Lake Charles, La., has been announced by E. M. Allen, president of Mathieson Alkali Works. Extensive salt rights will be carried through a $400,000, twenty-mile pipe line to the plant. The plant will produce caustic soda, soda ash, and soda, supplementing the company's units now operating at Niagara Falls, N. Y., and Saltville, Va. To supply funds for the work Mathieson will issue an additional 207,761 shares of no-par common stock at $30 a share.

—o—

The index of employment in the soap industry as compiled by the U. S. Dept. of Commerce stood at 112.1 in November, 1933, as compared with 116.7 in October and 98.3 in November of 1932. The pay-roll index registered 91.6 in November, 1933, as compared with 92.6 in October and 83.0 in November, 1932.

—o—

Purex Corp., Ltd., has been granted permission to register "Purex" as a United States trademark for a water softener and bleach by a decision of the United States Court of Customs and Patent Appeals, January 2, reversing a previous decision of the Commissioner of Patents. Opposition had been raised by the United Drug Co., owner of the marks "Puretest" and "Rexall" for use on various chemical products. The court's decision was based on the fact that there is no evidence of actual confusion in trade.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th St., N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 1,933,757. Disinfectant. Patented November 7, 1933, by Hans Priewe, Berlin-Charlottenburg, Germany, assignor to the firm Schering-Kahlbaum A. G. Berlin, Germany. A disinfectant consisting of a mixture of the double compound of urea and m-cresol containing 1 mol urea and 1 mol m-cresol with a diluent.

No. 1,934,057. Insecticide. Patented November 7, 1933, by Dudley H. Grant, Morristown, N. J., assignor to Standard Oil Development Company. An insecticide or insect repellent, comprising a petroleum white oil, an extract of a plant belonging to the class known as fish poisons, and an emulsifying agent.

No. 1,935,834. Cleansing Agents. Patented November 21, 1933, by Fritz Draisbach, Ludwigshafen-on-the-Rhine, Germany, assignor to Chemische Fabrik Joh. A. Benckiser G. m. b. H., Ludwigshafen-on-the-Rhine, Germany. A composition for cleaning articles made of aluminum, zinc and tin, consisting of trisodium phosphate, and, for the purpose of preventing corrosion of the metal article by the phosphate, 15-20 per cent of aluminum sulphate.

No. 1,936,265. Sulphonated Higher Fatty Acid Esters, Patented November 21, 1933, by Alfred Rheimer and Jakob Link, Basel, Switzerland, assignors to the firm of Chemical Works formerly Sandoz, Basel, Switzerland. The sulfuric acid esters of oelic acid, esterified with polyhydric alcohols in which at leas one hydroxy group is replaced by a halogen, oxyalkyl- or oxyaryl-group of the benzene series, which are in form of their free sulfuric acid esters or their alkali metal salts easily water soluble compounds, possessing excellent wetting, cleansing and emulsifying properties and which can be used for transforming water-insoluble or difficulty soluble compounds into stable emulsions or solutions.

No. 1,936,395. Packaging Soap, Patented November 21, 1933, by John C. Ingram, Chicago, Ill., assignor to Armour and Company, Chicago, Ill. A commercial package comprising a group of individually unwrapped units having adjacent faces of laterally interlocking configuration, and a transparent non-adherent binder for the group extending about the same to secure the group of units together against separation in a direction normal to the general plane of their interlocking faces.

FOR INTEREST INFORMATION & NEW IDEAS

SOAP TRADE REVIEW

SPECIMEN COPY POSTED FREE

NOW more than ever, it is necessary to keep in touch with trade developments in all parts of the world. THE SOAP TRADE REVIEW is the only monthly dealing exclusively with the Soap, Perfumery and Cosmetic Industries in Great Britain. It contains authoritative articles and the latest news and information of interest to those engaged in these industries.

Specimen copy posted free.

Subscription rate 12/6 per annum.

THE SOAP TRADE REVIEW
102-5 SHOE LANE, FLEET ST.
LONDON, E. C. 4

THE
SOAP TRADE REVIEW
With which is included
PERFUMERY AND COSMETICS

102-5 SHOE LANE FLEET STREET LONDON EC4

SUBSCRIPTION FORM

Enclosed is 12/6. Please enter me / us as Subscriber(s) to The Soap Trade Review for one year starting with the issue of ..... (Month)

Name .....

Address .....

.....

Remittances should be made payable to "Soap Trade Review"

CONTRACTS AWARDED

Armour & Co., Chicago, has been awarded a contract to supply 6,000 lbs. laundry soap to the Chicago U. S. Army Quartermaster at a price of 2.68c. Procter & Gamble Distributing Co. awarded 29,380 lbs. at a price of 2.69c, and 400 cakes toilet soap at 2.19c. Day & Frick, Philadelphia, awarded 300 cakes grit soap at 3.35c. Colgate-Palmolive-Peet Co., awarded 3,500 cakes toilet soap at 2.1c. Hunnewell Soap Co., Cincinnati, awarded 600 cakes grit soap at 2.5c and 600 cakes at 2.1c.

—o—

Mione Mfg. Co. was low bidder on a quantity of grit soap for the General Supply Committee, Washington, D. C., in a recent bidding, with a quotation of 4.25c. Low bidder on a quantity of disinfectant was James Good, Inc., with a quotation of 89.4c. On cleaner, Crystal Soap & Chemical Co. entered a bid of 44c on 5-gal. cans and 35c on 50-gal barrels.

—o—

Armour & Co. has secured a series of awards on soap chips for supply to the Chicago U. S. Army Quartermaster. The total aggregates 4,000 lbs. and prices range from 5.51c to 5.59c lb. Iowa Soap Co. awarded 250 lbs. at 5.45c and 250 lbs. at 5.35c. Swift & Co. awarded 2,500 lbs. at 5.4c and 250 lbs. at 5.37c.

—o—

Harshaw Chemical Co., Philadelphia, has been awarded a contract for 5,000 lbs. naphthalene for the Philadelphia U. S. Army Quartermaster at a price of 6c.

—o—

Armour & Company's bid of 2.375c lb. on a quantity of laundry soap for the U. S. Army Quartermaster at Fort Mason, Calif., has recently been accepted.

—o—

Newell-Gutradt Co. has been awarded a contract for 3,000 lbs. grit soap for the General Supply Committee, Washington, D. C., at a price of 5.9c lb.

—o—

Right Polish Co., Bloomfield, N. J., has been awarded a contract for 4,992 cans stove polish for the Chicago U. S. Army Quartermaster at a price of 4.8c. Innis, Speiden & Co., Chicago, awarded 20,016 cans caustic soda at 5.2083c. Thompson-Hayward Chemical Co., Kansas City, awarded 10,000 lbs., naphthalene at 6.25c.

—o—

Armour & Co., Chicago, has been awarded contracts to supply the Chicago U. S. Army Quartermaster with 37,200 lbs. laundry soap at 2.335c and 128,000 lbs. additional at 2.565c. Colgate-Palmolive-Peet Co. awarded 12,000 lbs. laundry soap at 2.914c and 12,000 lbs. at 2.733c. Day & Frick, Philadelphia, awarded 1,000 cakes grit soap at 2.85c, 300 cakes at 2.55c and 3,200 cakes at 2.4c. Samuel M. Sher, Chicago Heights, Ill., awarded 13,000 lbs. laundry soap at 2.75c. Hunnewell Soap Co., Cincinnati, awarded 2,800 lbs. grit soap at 1.9c. Procter & Gamble Distributing Co. awarded 9,300 cakes toilet soap at 1.93c.

—o—

Copeland Revises "Tugwell" Bill

A revised pure food and drug bill, using the "Tugwell" bill as a model but making many revisions to meet the objections raised to that measure, was introduced in the United States Senate, January 4, by Senator Royal S. Copeland of New York. The new bill is numbered S 2000. Senator Copeland agreed that much of the criticism of the original bill was justified, but declared that his new version is "fair to all concerned, and should receive the support of all consumers. It should likewise receive the endorsement of that great reputable majority of the industries involved."

Prof. R. G. Tugwell, it is reported, has also indicated approval of the redrawn measure, saying, "It should meet every reasonable objection that has been raised."

Highlights of the revised version include a scaling down of the many bureaucratic powers given to the Secretary of Agriculture in the original draft; definite provision for court review of all decisions; the setting up of advisory health and food committees; the omission of the much-discussed "ambiguity or inference" clauses; and broad provisions for self-regulation of the industries involved.

A committee on public health and another committee on food are to be set up "to cooperate with the Secretary of Agriculture in its general administrative provisions, and to aid and advise the Secretary." Both committees are to consist of five members appointed by the President "with a view to their scientific and technical knowledge" and "without regard to their political affiliations."

The Secretary is required to advise with the appropriate committee whenever he contemplates the adoption of any regulation, and no regulation may be adopted without the consent of at least three members of the committee involved, and after the holding of a public hearing.

Market Report on

ESSENTIAL OILS AND AROMATICS

(*As of January 8, 1934*)

NEW YORK—The market for essential oils and aromatic chemicals was a comparatively quiet affair this period, as contracted with the spectacular rises of recent months. Exchange rates fluctuated within narrow limits over the past month, and price movements were consequently minor. Prior to the close of the year the pace of buying slackened due to the desire of buyers to keep inventories at a minimum over the year end. There was a good demand, however, in the first week of the new year.

Anise Oil

Silver fluctuated within narrow limits this period, with the result that anise oil remained unchanged in price at 42c to 45c pound.

Cassia Oil

The same factor contributed to stability in the cost of this oil which was unchanged in price this period at $1.10 to $1.25 pound.

Geranium Oil

African and Bourbon oils were unchanged in price this period, although some sellers made minor reductions in quotations on Turkish (Palmarosa) oil.

Lavender Oil

The cost of high grade lavender oil was advanced $1.00 pound to $5.50 this period, the only advance of the month of any particular consequence. Variations in competing quotations on what is supposed to be the same quality oil has given rise to suspicion of sophistication. Further credence is given to this possibility by the recent sharp advances in the cost of lavender oil which might have encouraged this tendency as a means of hurdling price barriers.

Petitgrain Oil

This oil continued to advance, rising 5c pound to an inside figure of $1.25 pound. The pace of the advance has been slowed up somewhat by declining demand.

—o—

Regulations have recently been published regarding the manufacture and sale of soap in Spain. From February 1, 1934, all common soap must contain not less than 40 per cent. of fatty or resinous acids, and must be clearly stamped, showing the percentage of such acids contained therein.

This provision does not apply to toilet and medicinal soap, soft soap, and soaps with a basis of potash. Soap flakes and powders must not be sold in bulk, but in packets, sealed so as to guarantee their contents, and marked with an indication on the packet as to the percentage of fatty or resinous acids contained therein, which must not be less than 40 per cent. All common soaps, other than Castile, soap powders, soft soap, or soap with a potash basis, must contain at least 2 per cent. of rosin.

—o—

Announce Hearings on Toiletries Code

A public hearing on the proposed code of fair competition for the perfume, cosmetic and other toilet preparation industry will be held by Division Administrator Arthur D. Whiteside on Wednesday, January 17, at the Carlton Hotel, Washington. The code, sponsored by the Associated Manufacturers of Toilet Articles, calls for a 40-hour work week with a 48-hour week for watchmen, firemen, engineers and outside service employees and a 40-hour week, which may be divided into 12-hour days for continuous processes employees. All overtime would be paid for at time and one-third. During the peak period between September 1 and December 31, not to exceed 8 weeks, factory employees may work 48 hours with time and one-third for all over 40 hours. A minimum hourly wage of 35 cents for the north is provided for regular employees, 30 cents in the south and apprentice office workers, beginners and/or learners may be paid not less than 80 per cent of the minimum wage specified for their section.

Other provisions in the code outlaw the use of hidden demonstrators, requiring that demonstrators in retail stores be clearly identified to the public. Also the granting of p.m.'s or other gratuities to dealer's employees is forbidden. Fictitious prices in advertising or on packages are also prohibited. Open prices which are uniform to all distributors of the same class are required for all goods except private brand merchandise, and price lists must be filed with the code authority.

The code authority, which is to co-operate with the administrator, is to consist of seven industry members as follows: 3 national advertisers; 2 non-advertisers; 1 private brand manufacturer; 1 member elected by the other six. The six members are to be elected by the national trade associations of the industry.

—o—

Herman G. Weicker, president of Dodge & Olcott Co., New York, essential oils and aromatics, returned to New New York on the *Bremen* early in December after a short business trip to France and Germany.

Market Report on

SOAP AND DISINFECTANT CHEMICALS

(As of January 8, 1934)

NEW YORK—The market for soap and disinfectant chemicals was a quiet affair this period, with sellers concerned principally with 1934 contracting and buyers busy with inventories. Shipments failed to show any considerable advance after the first of the year, as in many cases consumers were well stocked with low priced goods ordered out in advance on their 1933 contracts. This was particularly the case for alkalis which were advanced in price on 1934 contracts.

Alkalis

Although producers reported a good volume of business booked for the first quarter of the year, there was comparatively little activity in the first week of the new year due to the fact that many users are well stocked up with supplies taken on their 1933 contracts. Caustic soda was advanced 10c a hundred on 1934 contracts and soda ash 5c a hundred. Producers report little resistance to these comparatively minor increases and good progress with 1934 contracts.

Glycerin

Dynamite glycerin was advanced fractionally this period, the basic position in the glycerin market being one of considerable strength. There is no surplus of offerings of domestic glycerin and the market continues to look very strong. The Association of American Soap and Glycerine Producers reports that sales of glycerin for anti-freeze purposes are going very well this season, the early and severe cold weather having stimulated consumption through this channel.

Rosin

The market for rosin and other naval stores was quiet this period as is usual at this season. The trend of quotations was upward as stocks in the primary centers dropped over the turn of the year.

—o—

J. A. Tumbler Laboratories of Canada, Ltd., a subsidiary of the Baltimore concern of the same name, will shortly start production of polishes, waxes, etc., in a plant in Toronto.

—o—

Croll-Reynolds Co., New York, has recently completed arrangements for F. M. deBeers, former president of Swenson Evaporator Co., to handle its chemical engineering equipment in the Middle West. Mr. deBeers' headquarters are at 20 North Wacker Drive, Chicago. Croll-Reynolds Co. reports that 1933 sales of their steam jet Evactors exceeded those in any other of the fifteen years since they started manufacturing this equipment.

—o—

Chicago Reports C-P-P Removal

Confirmation to the report of Colgate-Palmolive-Peet Company's contemplated removal of its general and executive offices to Jersey City, N. J., was seen in a newspaper report which appeared in the *Chicago Tribune* under date of January 5. The report states that the changes being made in the C-P-P building at Jersey City are to provide additional office space for the Chicago executives and staff. The Colgate-Palmolive-Peet Company now occupies seven floors in the Palmolive building, Chicago, most of which will be turned over to other tenants when the move is made. It is understood that only a skeleton personnel will be retained in Chicago. The *Chicago Tribune's* report also states that title to the thirty-seven story Palmolive building in Chicago has been transferred from the Palmolive Building Corporation to the Colgate-Palmolive-Peet Company, the amount involved being $2,756,500.

—o—

Find Sunlight Soap Imitation in China

Japanese soap, packed in wrappers bearing a similar trade-mark to that of Lever Brothers, Ltd., manufacturers of Sunlight Soap, has been discovered on sale in Hong Kong. It has been confiscated, but by agreement, prosecution has been withdrawn, following an agreement that no further importations of this soap will be made into Hong Kong. This is the second occasion recently when Japanese goods have been found in British possessions passing as colorable imitations of British goods. On the previous occasion, the matter was brought up in Parliament.

—o—

Conclude Palmolive Window Display Contest

Colgate-Palmolive-Peet Co. has just concluded an unusually successful window display contest in which more than 20,000 dealers submitted photographs of window displays of Palmolive soap. The company distributed $12,000 in cash prizes and also gave each contestant a Palmolive gift box. E. H. Little, vice-president in charge of sales and advertising, was much pleased with the reaction to the contest, both among dealers and the general public, and reports that among the first group of contestants studied it was found that the displays doubled their sales of Palmolive.

for YOUR PRIVATE LABEL

SPECIAL CLEANSERS

Our list includes the most efficient cleanser compounded for your particular trade.

SUPER ALKALIES

These are products which are adapted for special uses where stronger alkalies are required.

SNOWFLAKE CRYSTALS

The accepted base for quality bath crystals.

SCOURING COMPOUND

An effective abrasive product for cleaning floors, marble, etc.

PARADICHLOROBENZENE

This exceptionally pure product is an excellent deodorant and moth preventive.

ORTHODICHLOROBENZENE

For insecticide sprays and metal polishes.

PUT Solvay quality into your packages and get more out of your private brand. Write for Booklet SC7 for particulars on products for your special trade.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

61 BROADWAY NEW YORK

SOLVAY PRODUCTS

RED OIL

STEAR-IC

ACID

TALLOWS

Controlled Production:—

We collect, render and refine all of the raw materials used in our stearic acid and red oil. This close control, not available in any other brand, insures high quality products by eliminating low grade raw materials. Let us submit samples and prices. There is no substitute for quality. Use them in your

Dry Cleaning Soaps

Shaving Soaps

Special Cleaners

Polishes

Liquid Soaps

FANCY - EXTRA and SPECIAL TALLOW

Fatty Acids

Theobald Animal By-Products Refinery

KEARNY, N. J.

ESTABLISHED 1914

Market Report on

TALLOW, GREASES AND OILS

(*As of January 8, 1934*)

NEW YORK—The market for soapmaking fats, oils, and greases reversed itself during the period just closed and returned once more to a declining tendency. A number of items moved lower, losses ranging from a quarter to three-quarters of a cent a pound. The only product to move against the general trend was lard which showed a good advance. One reason for the decline was possibly the lack of interest among buyers who for the most part were anxious to keep stocks as low as possible over the inventory period.

Coconut Oil

Manila coconut oil dropped 3/8c pound this period, tanks being quoted in New York at 2¾c pound. The decrease attracted little interest among buyers, most of whom were busy with inventory taking and uninterested in adding to stocks. Offerings were rather light from primary centers at this figure, however, and the market held on a firm basis.

Corn Oil

Mill tanks of corn oil eased off from 4c to 3¼c pound this period, as buyers slackened interest in the market. There was no pressure of offerings at this level and the market was firmer at the close.

Cottonseed Oil

The market was quiet this month as is usual at this season, with quotations unchanged at the close of the period. The government has just gotten its cotton acreage reduction campaign under way and hopes to reduce the 1934 acreage to 25,000,000 acres. This would represent a reduction of 40 per cent of the five-year average acreage. Cotton producers are being offered $125,000,000 in benefit and rental payments to accomplish this end.

Lard

With hog values rising moderately and demand for small quantities of lard showing an increase, lard prices advanced a cent a pound this period, the closing quotation being 5¼c pound for prime steam lard.

Tallow

Tallow was a quarter of a cent a pound lower this period, city extra being priced at 3c pound at the close. Demand was limited and the weak position of competing product did nothing to strengthen prices.

Stocks of refined cottonseed oil on hand in United States as of November 30, 1933, totaled 723,138,473 lbs. as compared with 670,806,763 lbs. held on the same date in 1932. Stocks of crude oil, Nov. 30, 1933, were 159,876,807 lbs., as against 146,793,161 lbs., Nov. 30, 1932.

—o—

Oils and Fats Mostly Higher in 1933

The price index number of 23 oils and fats as compiled by the Bureau of Raw Materials for American Vegetable Oils and Fats Industries stood at 69.0 for the month of December, 1933, the base period being August, 1909, to July, 1914. This is the same base period employed by the United States Department of Agriculture in arriving at the index number for all agricultural commodities, which index number for the month of December, 1933, was 68. This is a decline of 3 from the November level. The oils and fats index declined only 1.6.

The average yearly price index of fats and oils increased from 61.7 in 1932 to 67.3 in 1933. This was an increase of 5.6 points. The average price index for 17 of the individual oils averaged higher in 1933 than in 1932. Those that did not average as high for the year were castor oil, coconut oil, menhaden oil, palm kernel oil, oleo stearin and whale oil.

Although the increase in the average yearly price index of all agricultural commodities, from 57 in 1932 to 63 in 1933, was slightly more than the increase in fats and oils, it will be noticed that the average yearly price index of fats and oils for 1933 was 4.3 points higher than the index for all agricultural commodities.

The index numbers of the various oils and fats for the months of November and December, 1933, and for the years 1932 and 1933, are as follows:

	November	December	1932	1933
Castor Oil	97.3	97.3	95.6	91.9
Corn Oil	85.4	80.8	81.6	94.0
Cottonseed oil	62.7	56.5	54.1	63.4
Lard	56.1	48.5	47.5	52.8
Oleo oil	60.3	61.8	60.5	61.2
Olive oil	89.8	91.7	74.1	80.2
Peanut oil	52.3	49.6	49.9	55.4
Soybean oil	109.3	104.5	84.4	98.8
Chinawood oil	94.2	88.4	73.8	80.3
Coconut oil	42.3	42.1	48.5	45.1
Cod oil	74.2	74.2	52.1	56.9
Grease	46.1	45.3	39.8	46.1
Herring oil	48.9	46.8	43.3	44.9
Linseed oil	106.9	105.3	70.2	100.2
Menhaden oil	51.8	56.7	49.5	46.9
Olive oil foots	86.1	87.2	63.6	75.6
Palm oil	56.6	56.0	52.4	53.0
Palm kernel oil	45.9	47.3	52.7	47.7
Rapeseed oil	65.7	65.6	54.0	71.0
Sesame oil	94.5	83.7	81.0	90.9
Stearin, oleo	48.3	48.4	46.2	45.0
Tallow	43.7	42.1	38.2	42.5
Whale oil	103.4	103.4	105.2	100.3

USE STAUFFER BRAND

Carbon Tetrachloride

in your liquid cleaners

STAUFFER BRAND Carbon Tetrachloride will make a good cleaner better. It is 99.9% pure, the purest obtainable anywhere, is water white and is absolutely free from residue or residual odor. May we work with you when you are next in the market? Let us submit samples and prices. Anything from a drum up.

Also producers of

CAUSTIC SODA

STAUFFER CHEMICAL COMPANY

Plants
Niagara Falls, N. Y.
Los Angeles, Cal.

Office
420 Lexington Ave.
New York City

SHERKA

CAMPHOR
SYNTHETIC

MADE FROM AMERICAN TURPENTINE

Terpineol, C. P.
WATER WHITE

Menthol Crystals
SYNTHETIC

Thymol, U. S. P.
PRIME WHITE CRYSTALS

NRA
WE DO OUR PART

PRODUCTS OF SCHERING-KAHLBAUM, A. G., BERLIN

SHERKA CHEMICAL CO. INC.

75 WEST STREET · NEW YORK
TELEPHONE · BOWLING GREEN 9-7482

CURRENT PRICE QUOTATIONS

As of January 8, 1934

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	.08½	.10
Acid, Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, 97% dk., drums	gal.	.42	.45
97-99%, pale, drums	gal.	—	.45
Oxalic, bbls	lb.	.11	.11¼
Adeps Lanae, hydrous, bbls	lb.	.14	.15
Anhydrous, bbls	lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls	gal.	2.45	2.59
Complete Denat., No. 5, drums., ex.	gal.	.34	.42
Alum. Potash lump	lb.	.03	.03¼
Ammonia Water, 260, drums, wks	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bleaching Powder, drums	100 lb.	1.75	2.35
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.06	.08½
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filer	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.09	.10
Creosote Oil	gal.	.11½	.12½
Feldspar (200 to 325 mesh)	ton	14.00	15.50
Formaldehyde, bbls	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.11	.11¼
Dynamite, drums	lb.	.10½	.10¾
Saponification, drums	lb.	.06¾	.07
Soaps, Lye, drums	lb.	.06¼	.06½
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.93	1.08
Naphthalene, ref. flakes, bbls	lb.	.06	.07¼
Nitrobenzene (Myrbane) drums	lb.	.09½	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Paraformaldehyde, kegs	lb.	.38	.39
Petrolatum, bbls. (as to color)	lb.	.01⅞	.06¾
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls	gal.	.59	.65
Potash, Caustic, drums	lb.	.07⅛	.07½
Flake	lb.	.08	.08¼
Potassium Bichronate, casks	lb.	.08⅛	.08⅝
Pumice Stone, powd	100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs	bbl.	4.65	5.20
Grade K to N	bbl.	5.40	5.55
Grade WG and WW	bbl.	5.65	6.05
Wood	bbl.	4.73	4.76
Rotten Stone, pwd. bbls	lb.	.02½	.04½
Silica, Ref., floated	ton	18.00	22.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castle, bars	lb.	.09	.12
powder	lb.	.17	.22
Olive Oil Foot	lb.	.04½	.06
Powdered White, U. S. P.	lb.	.16	.20
Green, U. S. P.	lb.	.06½	.08
Tallow Chips	lb.	.06	.06½
Whale Oil, bbls	lb.	.05	.06
Soda Ash, contract, wks, bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	1.05
Soda Caustic, Cont., wks., sld	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls	100 lb.	1.10	1.35
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls	lb.	.07½	.09¼
Sodium Hydrosulphite, bbls	lb.	—	.22
Sodium Silicate, 40 deg., drum	100 lb.	—	.80
Drums, 60 deg. wks	100 lb.	—	1.65
In tanks, 15c. less per hundred, wks.			
Tar Acid Oils, 15-25%	gal.	.20	.24
Trisodium Phosphate, bags, bbls	lb.	.03	.0355
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls	lb.	.18	.19

Oils—Fats—Greases

Castor, No. 1, bbls	lb.	.10¼	.11
No. 3, bbls	lb.	.09¾	.10½
Coconut			
Ceylon, Coast Tanks	lb.	.02½	.02⅝
Cochin, barrels, N. Y	lb.	.04½	.04⅝
Manila, tanks, N. Y	lb.	.02¾	.02⅞
Tanks, Pacific coast	lb.	.02½	.02¾
Cod, Newfound, bbls	gal.	.34	.35
Copra, bulk, Coast	lb.		.0135
Corn, tanks, mills	lb.	.03¼	.03½
Bbls., N. Y	lb.	.04⅝	.04¾
Cottonseed, crude, tanks, mill	lb.	.03⅜	.03½
PSY	lb.	—	Nom.
Degras, Amer., bbls	lb.	.02¾	.04
English, bbls	lb.	.03¾	.04
German, bbls	lb.	.03½	.03¾
Neutral, bbls	lb.	.07	.08½
Greases, choice white, bbls., N. Y	lb.	.03	.03⅝
Yellow	lb.	.02½	.02⅝
House	lb.	.02½	.02⅝
Lard, prime, steam, tierces	lb.	.05¼	.05½
Compound tierces	lb.	.07	.07¼
Lard Oil,			
Extra, bbls	lb.	—	.07¾
Extra, No. 1, bbls	lb.	—	.07½
No. 2, bbls	lb.	—	.06½
Linseed, raw, bbls., spot	lb.	.0930	.0970
Tanks, raw	lb.	—	.0870
Boiled, 5 bbls. lots	lb.	—	.1050
Menhaden, Crude, tanks, Balt	gal.	.15	.17
Oleo Oil, No. 1, bbls., N. Y	lb.	—	.06½
No. 2, bbls., N. Y	lb.	—	.05⅞
Olive, denatured, bbls., N. Y	gal.	.76	.78
Foots, bbls., N. Y	lb.	.06¼	.06½
Palm	lb.	.03¾	.04
Palm Kernel, casks, denatured	lb.	.04¼	Nom.
Peanut, domestic tanks	lb.	.03½	Nom.
Red Oil, distilled, bbls	lb.	.07	.07⅝
Saponified, bbls	lb.	.07	.07⅝
Tanks	lb.	—	.06
Soya Bean, domestic tanks, N. Y	lb.	—	.06
Stearic Acid			
Double pressed	lb.	.09½	.10
Triple pressed, bgs	lb.	.12¼	.12¾
Stearine, oleo, bbls	lb.	.04⅞	.05⅛
Tallow, special, f. o. b. plant	lb.	—	.02⅞
City, ex. loose, f. o. b. plant	lb.	—	.03
Tallow, oils, acidless, tanks, N. Y	lb.	—	.06¾
Bbls., c/l, N. Y	lb.	—	.07¼
Whale, crude	lb.	.03½	.04
refined	lb.	.06¾	07

Importers ***Dealers*** ***Brokers***

Olive Oil Foots
Commercial Olive Oil
Winter Yellow Cottonseed Oil
Prime Summer Yellow Cottonseed Oil
Stearic Acid • Red Oil • White Olein

WELCH, HOLME & CLARK COMPANY, INC.
Established 1838
563 Greenwich Street **New York City**

We have been supplying raw materials to the Soap and Allied Industries for 95 years.

A pure, brilliant white, free-flowing material of uniform high quality and superior mechanical condition. Available in four grades: chip, flake, fine and powdered.

VICTOR CHEMICAL WORKS
141 W. Jackson Blvd., Chicago, Ill.

Another advantage of the packaged cleanser made from
VICTOR
TSP

Boiling water isn't necessary

HOUSEWIVES frequently say they can't wash the dishes clean, because the water isn't hot enough. Here's a fact about packaged cleansers made with Victor Tri Sodium Phosphate that should interest them: T. S. P. cleans just as efficiently in lukewarm as in finger scalding water.

Sales making data on request

Complete, laboratory data covering the many advantages of Victor Tri Sodium Phosphate will gladly be supplied on request. Packagers of this popular household cleanser will find the information of considerable value in preparing sales promotion material and advertising campaigns.

As of January 8, 1934

Essential Oils

Almond, Bitter, U. S. P.	lb.	$2.00	$2.50
Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans	lb.	.60	.65
Anise, cans, U. S. P.	lb	.42	.45
Apricot, Kernel, cans	lb.	.21	.26
Bay, tins		1.30	1.70
Bergamot, coppers	lb.	1.50	1.90
Artificial	lb.	1.00	1.10
Birch Tar, rect., tins	lb.	.50	.55
Crude, tins	lb.	.13	.14
Bois de Rose, Brazilian	lb.	1.25	1.30
Cayenne	lb.	2.50	2.90
Cade, cans	lb.	.26	.28
Cajuput, native, tins	lb.	.50	.60
Calamus, tins	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	.15	.17
White, drums	lb.	.16	.18
Cananga, native, tins	lb.	2.00	2.05
Rectified, tins	lb.	2.50	2.55
Caraway Seed	lb.	1.90	2.25
Cassia, Redistilled, U. S. P.	lb.	1.20	1.25
drums	lb.	—	1.10
Cedar Leaf, tins	lb.	.65	.70
Cedar Wood, light, drums	lb.	.28	.30
Citronella, Java, drums	lb.	.45	.48
Citronella, Ceylon, drums	lb.	.38	.39
Cloves, U. S. P., cans	lb.	.95	.96
Eucalyptus, Austl., U. S. P., cans	lb.	.26	.27
Fennel, U. S. P., tins	lb.	1.10	1.30
Geranium, African, cans	lb.	6.00	7.50
Bourbon, tins	lb.	5.75	6.75
Hemlock, tins	lb.	.65	.75
Lavender, U. S. P., tins	lb.	2.25	5.50
Spike, Spanish, cans	lb.	.78	.83
Lemon, Ital., U. S. P.		1.00	1.40
Lemongrass, native, cans	lb.	.88	1.10
Linaloe, Mex., cases	lb.	1.15	1.25
Nutmeg, U. S. P., tins	lb.	1.20	1.35
Orange, Sweet, W. Ind., tins	lb.	1.40	1.50
Italian cop	lb.	1.20	1.70
Distilled	lb.	.55	.60
Origanum, cans, tech	lb.	.25	.50
Patchouli	lb.	2.75	3.00
Pennyroyal, dom	lb.	2.00	2.05
Imported	lb.	1.35	1.70
Peppermint, nat., cases	lb.	2.40	2.65
Redis., U. S. P., cases	lb.	2.70	2.95
Petit Grain, S. A. tins	lb.	1.25	1.30
Pine Needle, Siberian	lb.	.72	.80
Rose, Natural	oz.	5.50	18.00
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.32	.38
Tech., lb. tins	lb.	.28	.30
Sandalwood, E. Ind., U. S. P.	lb.	5.75	6.00
Sassafras, U. S. P.	lb.	.75	1.00
Artificial	lb.	.25	.27
Spearmint, U. S. P.	lb.	1.10	1.30
Thyme, red, U. S. P.	lb.	.50	.80
White, U. S. P.	lb.	.80	1.00
Vetivert, Bourbon	lb.	6.50	8.50
Java	lb.	16.00	20.00
Ylang Ylang, Bourbon	lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.50	$2.25
Amyl Cinnamic Aldehyde	lb.	3.50	4.25
Anethol	lb.	1.00	1.10
Benzaldehyde, tech	lb.	.60	.65
U. S. P.	lb.	1.10	1.30
Benzyl, Acetate	lb.	.60	1.00
Alcohol	lb.	.75	1.15
Citral	lb.	1.90	2.20
Citronellal	lb.	2.25	2.50
Citronellol	lb.	2.30	3.00
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide	lb.	1.05	1.25
Eucalyptol, U. S. P.	lb.	.55	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	1.25	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	2.50	4.00
Heliotropin	lb.	1.85	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.60	6.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	3.00	4.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.15	3.20
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	5.75	6.00
Ketone	lb.	6.25	6.50
Moskene	lb.	5.00	6.00
Xylene	lb.	2.00	2.50
Phenylacetaldehyde	lb.	4.00	6.50
Phenylacetic Acid, 1 lb., bot	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot	lb.	4.25	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.28	.30
Terpineol, C. P., 1,000 lb. drs	lb.	.33	.35
Cans	lb.	.36	.37
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	4.50	5.75
Yara Yara	lb.	1.30	2.00

Pyrethrum Products

Insect powder, bbls	lb.	.32	.34
Concentrated Extract			
5 to 1	gal.	1.80	1.90
15 to 1	gal.	5.30	5.45
20 to 1	gal.	7.10	7.25
30 to 1	gal.	10.50	10.65

Gums

Arabic, Amb. Sts	lb.	.08	.08¼
White, powdered	lb.	.10½	.12
Karaya, powdered No. 1	lb.	.10	.11
Tragacanth, Aleppo, No. 1	lb.	1.00	1.05
Sorts	lb.	.11	..12

Waxes

Bees, white	lb.	.32	.35
African, bgs	lb.	.20	.22
Refined, yel	lb.	.22	.26
Candelilla, bgs	lb.	.11	.12
Carnauba, No. 1	lb.	.31	Nom.
No. 2, Yel.	lb.	.30	Nom.
No. 3, Chalky	lb.	.16	Nom.
Ceresin 156-165 deg	lb.	.29	.30
Paraffin, ref. 125-130	lb.	.03¾	.04¼

Laboratory Controlled Neutral Powdered Soap

We specialize in the production of Neutral Powdered Soaps primarily for use in dentifrices and other toilet preparations. With the requirements of these types of products in mind our Neutral Powdered Soaps are manufactured from refined edible oils; have no free caustic or free alkali; have a decidedly low moisture content and are *laboratory controlled.*

Concentrated Shaving Cream Base

This product is a creation of our Chief Soap Chemist, and affords a medium for manufacturing a quality finished shaving cream, most expeditiously and most economically.

Removes all uncertainty from shaving cream manufacture.

Send for samples and compare

John Powell & Co., Inc.

114 East 32nd St. **New York, N. Y.**

New!

FULL REMOVABLE HEAD BARREL

This new Barrel, with outside vertical action locking ring, COMBINES all of the desirable features of an open-head container.

The ring *reinforces* the barrel. The full open head provides for the easy removal of *all* of the contents.

The ring closes and locks easily without injuring the hands.

No water or dirt can fall into the barrel as the lid is being removed—the cover extends completely over the edge. The cover seals on securely—leakproof and tamperproof (by use of wire seal or lock).

This new Barrel is not only a practical shipper, but is ideal for storage and processing in the plant.

Write for complete details and prices.

Benetco Steel Pails, Drums and Barrels in every practical style and size are made to meet your exact requirements. Write us about your container problems. We will gladly submit samples and quote prices—no obligation on your part.

MADE IN TWO PRACTICAL SIZES
No. 3019—30-Gallon Capacity
No. 5518—55-Gallon Capacity

WILSON & BENNETT MFG. COMPANY

GENERAL OFFICES: 6528 So. Menard Ave., CHICAGO

Eastern Division
455 Third Street
Jersey City, N. J.

Southern Division
Cortez and Bienville Sts.
New Orleans, La.

SALES OFFICES AND WAREHOUSES IN PRINCIPAL CITIES

Code Developments

(From Page 28)

In connection with the question as to what persons are really in an executive or managerial capacity, General Johnson has publicly ruled as follows:

"There are provisions in various codes excepting from the limitation upon hours of those described as 'managers' or 'executives' and complaint has been received that in many instances employees are classified as 'managers' or 'executives' either for the purpose or with the result, of exempting them from limitations upon hours. It has been the intention of the Administration in approving such exceptions to provide for the exemption of any persons other than those who exercise real managerial or executive authority, which persons are invested with responsibilities entirely different from those of the wage earner and come within the class of the higher salaried employees.

"It will be presumed that no employee receiving less than $35.00 per week will be classified as a 'manager' or 'executive' so as to be exempt from any provision of any code regulating the maximum hours of work permitted in a trade or industry. Violations of the requirements of any code, as here interpreted, should be reported to the National Recovery Administration."

Question: On reading over this Code we find in Article III, Section A-1, that watchmen are exempt from the average of 40 hours per week on any six months' period. Under Article IV, there is no reference made to the wages as applied to watchmen. Kindly advise if a watchman is worked more than the 40 hours per week if he is to receive the regular rate of 40c an hour for each hour worked, or if he is a "white collar" worker if he has to be paid a certain minimum. In other words, watchmen according to the Code are exempt as far as hours are concerned, but how about the wages to be paid?

Answer: There are no limitations upon the hours watchmen can work. On the other hand, there is a natural limitation due to the fact that under Article IV of the Code no employee (except those mentioned in Section 3 of Paragraph A, which does not include watchmen) may be paid less than 40 cents an hour. Therefore, if watchmen worked, for example, six nights at 10 hours or a total of 60 hours, it would be necessary that he be paid not less than $24.00 a week. If he were paid on an hourly basis the rate per week would be even higher because under Article III, Paragraph B, any employee on an hourly basis who works in excess of 8 hours a day, or in excess of 40 hours a week, must be paid for the excess hours not less than one and one-third the regular hourly rate. Therefore, watchmen working 60 hours a week on an hourly rate would have to be paid not less than $16.00 for the first 10 hours of his work plus not less than $10.67 for the remaining 20 hours of his work, thus making a total weekly payment on the hourly rate of $26.67. These figures are for illustrative purposes and can be worked out on any basis of hours wished.

Article III-B

Question: An engineer was working 50 hours per week at 50c per hour before the President's Blanket Agreement on August 1st. Since that time he has been working 40 to 44 hours per week, at the same wages, viz., $25.00 per week. The Soap Code permits him to work 48 hours per week as per Article 3, Section A 5. Now Article 3, Section B, states that any employee on an hourly rate who works an excess of 40 hours any Calendar week shall be paid time and one-third the regular hourly rate for the excess over the 40 hours. What should he be paid?

Answer: Article IV, Paragraph C, of the Code requires a fair and equitable readjustment. This would mean that the $25 weekly pay which the engineer formerly received for 50 hours, is now received for 48 hours, making the basic hourly rate 52½c per hour. In accordance with Article III, Paragraph B, the engineer in working 48 hours a week works 8 hours over the regular 40 hours and must therefore be paid time and one-third for these extra 8 hours. This means that for these 8 hours he receives $5.60. Therefore his pay would figure as follows:

40 hours at 52½c equals	$21.00
8 hours x 52½c x 1 1/3 equals	5.60
Adding those together give you	$26.60

(Turn to Page 67)

WARNER Quality

PIONEERED FOR NEARLY 50 YEARS

CAUSTIC SODA
HIGHEST GRADE
(ELECTROLETIC)
IN EITHER
SOLID OR LIQUID
FORM

CARBON
TETRACHLORIDE
REDISTILLED
WATER-WHITE
SUPPLIED ALSO
IN COMBINATION WITH
OTHER SOLVENTS TO MEET
INDIVIDUAL REQIREMENTS

TRI-SODIUM
PHOSPHATE
FINE GRANULAR AND
POWDERED
A FREE FLOWING AND NON-CAKING
PRODUCT NATIONALLY KNOWN
FOR ITS UNIFORM QUALITY

An opportunity to submit samples and quotations is solicited

WARNER
CHEMICAL COMPANY
Pioneer Producers 1886

CHRYSLER BUILDING
NEW YORK CITY

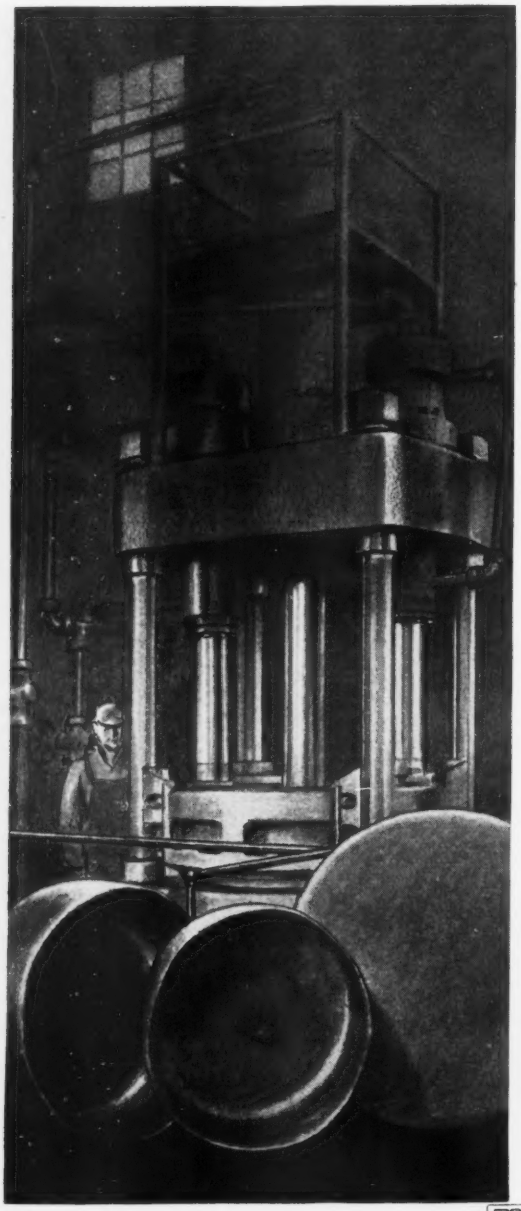
155 E. SUPERIOR ST.
CHICAGO

70 RICKARD ST.
SAN FRANCISCO

EXCLUSIVE SALES AGENTS for WESTVACO CHLORINE PRODUCTS, Inc.

USS

PLYKROME



The Stainless Clad Plate That Is Easy To Fabricate

NO difficulties will be encountered in fabricating Plykrome by any of the ordinary methods. Nor will you need any special equipment.

Plykrome may be welded, drawn, spun, beaded, formed or cold rolled. It will not separate or split under severe forming operations. This is due to the presence of a special metallic bond sheet between the Stainless Steel surface and the carbon steel base. The bond sheet accommodates the two metals to one another, thus compensating for their differing physical qualities.

For all applications where corrosion resistance on one side is sufficient, specify Plykrome . . . for service and for economy.

For complete metallurgical information write to Illinois Steel Company.

Illinois Steel Company

208 S. LA SALLE STREET, CHICAGO, ILLINOIS

SUBSIDIARY OF UNITED STATES STEEL CORPORATION

Plykrome will not separate or split under severe forming operations

U S S CHROMIUM-NICKEL ALLOY STEELS ARE PRODUCED UNDER LICENSES OF THE CHEMICAL FOUNDATION, INC., NEW YORK, AND FRIED. KRUPP A. G. OF GERMANY

Oil-Fat-Soap
PRODUCTION SECTION
A section of SOAP devoted to the technology of oils, fats, and soaps, published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Scouring Powders

By H. B. KELLOGG
Warner Laboratories

SCOURING powders are usually made from a uniform mixture of soap powder and an insoluble abrasive. The abrasives are usually powdered pumice, volcanic ash, quartz, marble, or feldspar. The abrasive is mixed with the soap and sodium carbonate in various mixers. This report is a study of the cleansing action of various scouring powders to determine their efficiency as a cleansing agent for tile, marble, woodwork, linoleum, painted surfaces, and to determine the extent of corrosive action on these surfaces including the abrasive action of the gritty ingredients. As such, it may prove of value as a guide in practical manufacturing operations.

There is a marked difference in the scouring powders that are on the market today. Too many of them are crudely compounded with complex and variable materials, especially the abrasive constituents that may injure and scratch certain surfaces. Hence the purpose of this investigation was to determine which will clean efficiently but safely when applied to various surfaces, especially to delicate surfaces easily injured or affected in color.

The first step was a chemical analysis of various scouring powders. Samples of tile, marble, woodwork, linoleum, porcelain, and painted surfaces were exposed to conditions that would produce on all of them a more or less uniform dirt deposit, grease film, etc. These samples when sufficiently unclean were marked off into halves. One half of the surface of the sample of tile, marble, linoleum, etc., were then washed with various scouring powders and these now clean surfaces were examined under the microscope and the result compared with those from the examination of similar surfaces that had been left clean. It was found that a concentration of 3 oz. of scouring powder in a pail of water produced the least corrosive action and the most efficient cleansing on those surfaces. The half-surfaces that had been left dirty were now cleaned with the powder in the dry state and then rinsed and the results of these respective actions compared with the results of the action of the scouring powders mentioned above.

On painted surfaces these tests were somewhat modified. From one painted surface, a very small portion of the paint was carefully removed to expose the bare wood. Part of the painted surface was soiled and then washed with scouring powder. A microscopic examination was then made of the thickness of the other paint surfaces, namely, the one that had been made dirty and then washed, and the one that had been left untouched. It was found that such an examination was possible because the thickness had been made visible by scratching away part of the paint to the bare wood underneath and that scouring powder had a very slight increasing corrosive action as the concentration of the washing solution was increased.

In addition, a separate test was carried out to determine the abrasive action of the various scouring powders used. The method employed involved the use of two microscopic slides which were first examined and ascertained to be in perfect condition, and free from any scratches. A pinch of scouring powder was placed between the two slides and one of the slides subsequently moved back and forth. By this means any abrasive action that might have occurred was then detected by a microscopic examination of the slide. The same method

was applied to porcelain, glazed, and glass surfaces which made possible a comparative study of the abrasive action on these surfaces.

From this survey it was found that the abrasive ash in some of these is very difficult to rinse off and that others were much too gritty. Naturally such products should be used sparingly and only when necessary, since any abrasive will wear away the surface over which it is rubbed. It has also been found that some of these powders at increased concentrations will attack painted surfaces apparently due to their alkali content. Therefore such solutions should not be permitted to remain long on painted surfaces but should be rinsed off quickly. Package directions should emphasize this.

In general, scouring powders sold today may be classified in three main groups, namely Type A—for fine marble, glass and painted surfaces; Type B—for tile, ceramic, and terrazzo floors; Type C (soap scouring compounds)—for ordinary surfaces, as cement, wood, asphaltum, etc., floors.

The constituents of these should be as follows:

Type A

1. Moisture should not exceed 10%.
2. The sum of sodium carbonate (Na_2CO_3) and anhydrous soap shall not exceed 7% nor be less than 2%.
3. Insoluble siliceous material shall be not less than 85% nor more than 95%.
4. All the insoluble siliceous material shall pass through a No. 100 sieve and the residue on a No. 200 sieve shall not exceed 5%.

Type B

1. Moisture should not exceed 10%.
2. The sum of sodium carbonate (Na_2CO_3) and anhydrous soap shall not be less than 2%.
3. Insoluble siliceous material shall be not less than 80% nor more than 95%.
4. The insoluble siliceous material shall not yield more than 1% of residue retained on a No. 60 sieve and not more than 10% of residue retained on a No. 80 sieve.

Type C

1. Moisture should not exceed 6%.
2. Carbonated alkali, calculated as sodium carbonate shall not be less than 6% nor more than 20%.
3. Anhydrous soap shall be not less than 3% nor more than 10%.
4. Insoluble siliceous material shall not yield more than 1% of residue retained on a No. 60 sieve and not more than 10% residue retained on a No. 80 sieve.
5. Insoluble siliceous material shall be not less than 60% nor more than 90%.

A requirement of all scouring powders should show them by microscopic examination to be soft, flat, and flaky particles of porous consistency. When used as a cleanser, it should break down under the pressure of mop or brush, and perform the function of erasing the dirt without reacting chemically on the surface. It should remove only the dirt, not the surface. It should take hold quickly and erase the dirt easily without requiring hard scrubbing. It should not injure the hands, or the mop or brush used.

When the proper scouring powder is used the mop or brush last longer, while the soft abrasive permits the mop or brush to glide over the floor smoothly and quickly. The abrasive mineral content should be perferably of volcanic ash, soft and flaky. With these physical properties the maximum absorptive value will be obtained.

RESULTS OF COMPARATIVE TEST

Sample	Cleansing Efficiency	Abrasive Action	Abrasive Scratch to Surface	Corrosive Action	Rinsing Test (in ½ seconds)
1	90%	Very good	None	None	10
2	90%	Good	None	None	6
3	85%	Fair	None	None	9
4	80%	Good	Slight	None	9
5	85%	Very good	None	None	15
6	88%	Good	Slight	None	12
7	90%	Fair	Slight	None	10

CHEMICAL ANALYSES OF POWDERS

Sample	Anhydrous Soap	Sodium Carbonate	Ash as Abrasive	Tri-Sod. Phosphate	Tot. Alkali as NaOH
1	11.33%	50.00%	33.34%	None	37.7%
2	16.88%	48.60%	None	Hv. Traces	36.45%
3	16.46%	44.10%	39.44%	None	33.08%
4	2.18%	None	89.00%	None	00.00%
5	4.60%	6.30%	86.60%	None	4.73%
6	9.20%	19.46%	71.74%	None	14.60%
7	16.50%	30.00%	43.50%	None	22.50%

———o———

Washing Power of Soaps

At room temperatures, the greatest washing power is shown by castor oil soaps, next by cottonseed oil soaps and least by oleate soaps. Rosin soaps are much better emulsifying agents, particularly at higher temperatures, than fat soaps. The emulsifying power of soaps increases up to 1 per cent concentration; it is less at higher temperatures and varies with the composition and viscosity of the materials emulsified. The emulsifying power of oleate, castor oil and rosin soaps at room temperature is raised considerably by 0.25-1.0 per cent of alkali, while cottonseed soaps are precipitated by the addition of alkali. The emulsifying power of rosin soaps is increased considerably by the addition of 2 per cent sodium chloride and still more by the addition of 1 per cent caustic soda. Foaming agents retard emulsification. For fabrics soiled with soot, the greatest cleansing power is shown by cottonseed oil soaps (0.25 per cent), then olein soaps (0.5 per cent), rosin soaps (0.125 per cent) and finally castor oil soaps (0.5 per cent). N. A. Suikhra and V. M. Segal *Chem. Zentr.*

———o———

Fatty substances are mixed with a decolorizing agent and subjected to a high enough temperature to distill over the fatty acids. The mixture is agitated by means of a current of inert gas during the distillation and the fatty acids are condensed. Filtrol Co. of California. United States Patent No. 1,909,605, filed May 20, 1929.

Special Soaps

SOAP has very definite limitations, and when unusual cleaning problems arise, must be replaced or helped by other materials. These are special soaps, detergents and emulsifying agents which do not possess the usual deficiencies of common soaps, according to Josef Augustin, writing in *Seifensieder Zeitung*. Modern soap substitutes permit the manufacture of special detergents containing ingredients whose addition has until recently been considered impossible or useless. One or two are worthy of note.

Silk Soap.—Silk soap is not a material which derives its name from its purpose. A satisfactory detergent for sensitive textiles is not new. Neutral gall soaps with remarkable cleansing powers have been known for some time. The newer product consists of a mixture of soap and ground silk fiber. It is unusually good for cleaning silk and wool, but it is especially recommended as a cosmetic soap. The raw silk fiber is supposed to have a mild massaging effect which imparts a silk-like luster and soft feel to the skin and the hair. In addition to this, however, the presence of sericin is undoubtedly important. Sericin, a member of the lipoid group, is closely related to lecithin and has an effect similar to lecithin as an emulsifier and detergent. Indeed, the addition of vegetable lecithin and various superfatting materials such as petrolatum, lanolin, etc., greatly enhances the effect of the sericin. If it is desirable to avoid pronounced superfatting, a mixture of lecithin and glyceryl monostearate is used.

Soap for Acid Dirt.—All soaps decompose in the presence of acids, with liberation of fatty acid and the corresponding sodium or potassium salt. Use is made of soap substitutes which are stable to acids, and which act like soap in producing abundant lather. Suitable materials are the sodium salts of various technical lauryl alcohol sulfonic acids which are even more stable to acids than the sodium salts of the corresponding sulfuric acid esters. Naturally, the latter are also good detergents in acid media. In fact, these compounds seem to give a better lather in the presence of acids than in alkaline or neutral solutions.

The fatty alcohol sulfonates may be used undiluted, as a concentrated powder, or they may be extended by admixture with soda, borax, trisodium phosphate, bleaching powder and similar alkalies. To increase cleansing power, abrasives are added such as pumice, sand, sawdust, china clay, talc, infusorial earth, silica, etc. Chalk, magnesium carbonate or other materials which react with acids are not used. The sodium salt of olein alcohol sulfonic acid occurs as a paste and may be used if a pasty product is desired. More or less of the lauryl alcohol sulfonate is added to the paste to increase lathering power.

Soaps for Wool and Silk.—After years of investigation, a neutral curd soap was finally chosen as a satisfactory product for cleaning and beautifying silk, wool and other sensitive materials. Soap flakes gained great popularity because of their easy solubility and the general convenience in using them. Nevertheless soap flakes frequently gave the goods a strong musty odor, and a heavy perfume has to be used to mask the odor. Because of their cheapness, soap flakes are generally used, particularly when fortified with protecting and strengthening emulsifiers. Gall soap, a complete departure from traditional soaps, is a distinct step forward, but its high price has delayed extended use, even though its detergent and beautifying properties are remarkable.

A true gall soap, containing at least 10 per cent of thickened ox gall, is the desired product. Although the albuminous materials present in the gall exert a beneficial effect, the main properties are due to the gallic acid salts. Admittedly the difficult and unpleasant job of preserving and concentrating the gall must be accomplished in whatever manner is most convenient. Beef gall is unsatisfactory as it has a putrid odor, and is uneven in its composition and effect. In addition, it gives a dark green-brown soap. These difficulties are avoided by the use of technical sodium cholate which has proven to be an effective substitute for gall soap. It is a stable, easily soluble, odorless, brownish powder of fairly uniform composition. A few tenths per cent of sodium cholate have the same effect as a much larger amount of dried ox gall.

——o——

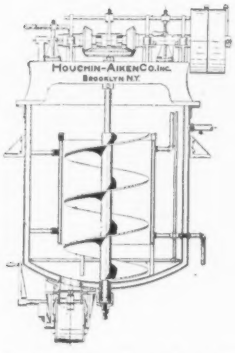
Unsaponifiable constituents contained in oils, etc., or in the oxidation products of hydrocarbons are separated by treating the crude material with a saponification agent followed by distillation. The saponifiable constituents are converted into a mixture of magnesium, calcium and potash soaps, the bases being used in such proportions that the resulting crude saponified product has a melting point below 150 degrees C. In this process overheating and decomposition are avoided. The residue of soaps from the distillation may be treated with acid to liberate the fatty acids which are purified by distillation with steam. I. G. Farbenindustrie A.G., Frankfurt-am-Main, Germany. British Patent No. 380,707.

——o——

Cleansing agents, which do not attack aluminum, tin or the alloys of these metals, are prepared by dissolving water-insoluble silica in sodium phosphate, and drying or solidifying the product, preferably by atomization. In an example 100 kilograms of quartz or kieselguhr are dissolved in 1,000 kilograms of sodium phosphate melted in its water of crystallization. Chemische Fabrik Budenheim A.G. British Patent No. 379,512. August 25, 1932.

NEW and *USED*
HOUCHIN SOAP MACHINERY

Perfection Crutcher
Sliding Gate Valve

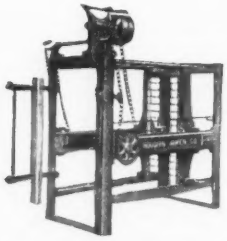


Perfection Crutcher Cross
Section View Plunger
Type Valve

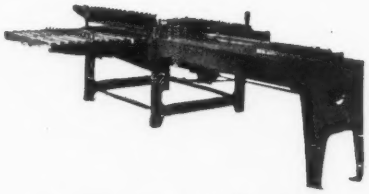
Horizontal Crutcher

Empire State
Press

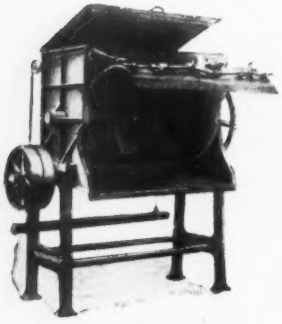
Standard
Soap Frame



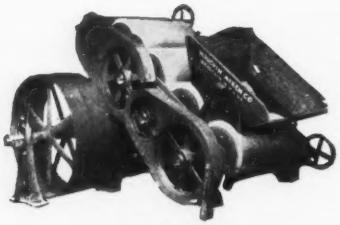
Automatic Power
Slabber



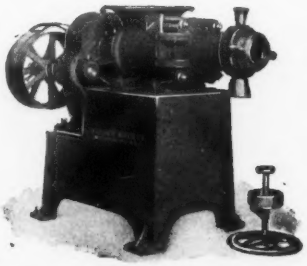
Automatic Power Cutting
Table



Ideal Amalgamator



4-Roll Mill
Mills built with 3 to 12 Chilled
Iron or Granite Rolls



Spur Gear 10" Screw Plodder
Plodders furnished with 2½"
to 12" screws.

Write Us For Information Regarding MILL-LESS Method for Making Toilet Soap

HOUCHIN MACHINERY CO., Inc.

FORMERLY HOUCHIN-AIKEN CO., INC.

HAWTHORNE, NEW JERSEY

Storing and Packing Fine Soaps

Unless particular care in storage and packing is exercised, fine soaps will be definitely altered, and in some cases become unsalable after a relatively short time. R. Voss, writing in *Seifensieder Zeitung*, gives the results of five years' observation in Brazil. Tropical climate may be considered as intensification of conditions in the temperate zone. Under the influence of light, atmospheric moisture or impurities in air, soaps will undergo changes in odor, color, hardness and lathering qualities. The first is the most frequent, and most objectionable change.

Diffused daylight, as well as direct sunlight, will bleach wrappers tinted yellow or red with aniline colors in from 4 to 6 weeks. Blue or violet colors last about twice as long while green is virtually unaffected. Essential oils in soap perfumes are altered by light in the following order, the least affected being listed first: pine-needle, juniper, patchouli, vetivert, bois de rose, bitter almond, petitgrain, thyme, orange, citronella, iris, spearmint, bergamot, angelica, anise, mandarin, sandalwood, clove, eucalyptus, rose, neroli, and lavender oils.

Unperfumed soap is also changed by light. A coconut oil soap containing lard or castor oil changes its odor more rapidly than one containing olive oil. It is noteworthy that these changes in odor occur long before it is possible to detect chemical changes caused by light. To prevent this deterioration, a green wrapper serves best, while an amber-yellow covering is least effective.

—o—

Lecithin in Solvent Soaps

Lecithin as an ingredient of soaps containing various organic solvents, such as carbon tetrachloride, benzine and the like, permits homogeneous admixture of the solvent and the soap so that the detersive properties of the product are improved. The solvent also stays permanently dispersed in the soap. Furthermore, the uniform and complete dispersion of the solvent in the soap mass brought about by the presence of lecithin gives a soap which does not lose its solvent by evaporation and thus deteriorate in quality. It is claimed that the action of lecithin in this respect is far superior to that of castor oil fatty acids or turkey red oil which have been used for the same purpose. It is possible to use the combined emulsion of vegetable lecithin, oil and water which is obtained by the extraction of soya bean for the recovery of the oil. This emulsion is a by-product. It is treated to cause deposition of the oil contained in it and thereafter it is immediately mixed with a small proportion of alkali or alkali peroxide so that it is given a slightly alkaline reaction. Then 50 parts of such weakly alkaline emulsion of lecithin, containing 40 parts lecithin, 40 parts oil and 30 parts water are mixed with 10 parts of carbon tetrachloride, until the solvent is regularly dispersed in the emulsion. Then 45 parts of liquid curd soap in the warm state are added, preferably immediately after it has been made and cooled. The soap is agitated with the lecithin until a homogeneous mixture is obtained. Henseatische Muehlenwerke A.G., Hamburg, Germany. German Patent No. 578,126.

Spontaneous Heating of Soap

Wegener points out that in the storage cellar of a wholesale druggist, a case of soap suddenly emitted steam. The case contained *sapo medicatus* (medical soap prepared according to the directions in the German Dispensatory) in 5 kg. bags. Only one bag had become heated, although the bags were tightly packed one upon the other. The soap in the affected bag was caked together, and the bottom of the bag was blackened. Possibly combustion was caused by the use of olive oil or other unsaturated oil. These unsaturated compounds are readily oxidized with liberation of heat. Yet in this case, only one bag out of a uniform batch exhibited deviation from the normal state.

To clarify the combustion process, A. Welter has shown that powdered soaps, poor in water and manufactured from drying or semi-drying oils, have a great tendency to become heated, while soaps from saturated fatty acids show no temperature rise on storage. As an example, 500-600 kg. of water-free cottonseed oil soap powder spread upon a concrete floor became hot at the end of an hour. Furthermore, the apex of a pile of this soap, one meter high, suddenly began to give off smoke and within 15 minutes the whole pile was burnt to a coke-like mass. Thus it is advisable to avoid the manufacture of water-free soap powders, with large reactive surface, from unsaturated oils and fatty acids.

Even so, it is still not certain whether heat is evolved because of oxidation by air or because of reaction between unsaturated molecules. Probably there is a combination of both effects, with traces of metals accelerating the reaction.

However, according to E. Lederer, soaps made of fats that show no trace of adulteration with unsaturated oils, may also undergo spontaneous heating. In this case, addition of zinc oxide to the soap chips retards heating. Furthermore, when soap chips containing different quantities of water are stored together, spontaneous heating may take place. Soap chips containing 8 per cent water were mixed with a product containing 14 per cent and stored in a 500 kg. capacity concrete vat. In a few hours, strong heating was evident, the soap poor in water extracting moisture from the soap with the higher percentage and liberating heat. Spontaneous heating did not occur when dry soap chips, hot from the drying cylinder, were stored alone. Taking up of water by a dry soap powder was shown to be a heat liberating phenomenon by Ziegler. Soap chips sontaining 84 per cent fatty acid were loosely piled in a wooden silo which allowed the entrance of air. The soap was covered with wet jute sacks to prevent further drying; water was taken from these sacks with such energy that the soap chips next to the sacks were charred brown. Thus there can be as yet no clear-cut explanation for the spontaneous combustion of soap chips and powder, unsaturated ingredients being only part of the cause. *Seifen-, Oel- u. Feetindustrie*, Nov. 25, 1933.

No Chemical Plant Is Complete

Without a Compact Technical Library

And No Such Library Is Complete Without These Well-Known

TECHNICAL BOOKS

Perfumes, Cosmetics and Soaps, by Poucher. New and revised edition of this standard reference. Volume I, a dictionary of raw materials, 394 pages, $6.50. Volume II, dealing with the manufacture of soaps, perfumes and toilet preparations, 406 pages, $9.00.

The American Soap Maker's Guide, by Meerbott and Stanislaus. The most recent American publication on soap manufacturing. 750 pages. $7.50.

Textile Soaps and Oils, by Hurst & Simmons. A handbook on the preparation and properties of soaps and oils used in textile manufacturing. 212 pages. $4.00.

Henley's Twentieth Century Book of Recipes, Formulas and Processes. A handy reference book listing 10,000 miscellaneous formulas, including special sections for soaps, polishes, insecticides, etc. 800 pages. $4.00.

The Industrial Chemistry of Fats and Waxes, by Hilditch. A study of the fats and waxes in relation to their use in industry. 450 pages. $6.00.

Manual of Toilet Soap Making, by Deite. Translation from a standard German text on manufacture of toilet and medicated soaps. 360 pages. $8.00.

Art of Soapmaking, by Watt. Practical handbook on the manufacture of hard and soft soaps. 323 pages. $4.00.

Modern Soap Perfumes, by Sedgwick. A practical handbook on the science of soap perfumery. $1.00.

Hydrogenation of Organic Substances, by Ellis. Latest revised edition of this well-known book, pre-eminent in the field of hydrogenation. 990 pages. $15.00.

Modern Soap and Detergent Industry, by Martin. Second Edition. An outstanding contribution to the literature on soap manufacture. Thoroughly up to date work covering processes, apparatus and formulas. In two volumes—cloth binding, 6½ x 10½. Price $12.00 for each volume.

Pyrethrum Flowers, by Gnadinger. A complete compilation of all known facts on pyrethrum; its history, sources, evaluation, chemistry and uses. The problems involved in the manufacture of pyrethrum products are given thorough and lucid exposition. 270 pages. $3.50.

Soaps and Proteins, Their Colloid Chemistry in Theory and Practice, by Fischer. 272 pages. $4.00.

Soaps, by Hurst. A practical manual of soap manufacture. 440 pages. $8.50.

A Handbook of Soap Manufacture, by Simmons and Appleton. 167 pages. $4.00.

Soap Blue Book, A Buyer's Guide. 195 pages. $1.00.

Vegetable Fats and Oils, by George S. Jamieson. 444 pages. An American Chemical Society Monograph. Covering classification, occurrence, properties, analytical methods, etc., of vegetable oils, fatty acid and other derivatives; also production and refining methods. $6.50.

Chemistry of Laundry Materials, by D. N. Jackman. A new book for the laundry operator, containing valuable information on the chemistry of laundry materials. Discusses alkalies, soaps, bleaches, starches, also the newer detergents, synthetic soaps, etc. 230 pages. $2 50.

Owing to the large number of books supplied it is impossible to open accounts on individual book orders or to supply books on approval. Please send check with order.

MacNAIR-DORLAND CO.

136 LIBERTY STREET **NEW YORK CITY**

ON PRODUCTS AND PROCESSES

The Beckman bacterial process for the extraction of coconut oil from copra and fresh coconuts has been extensively tested in London. The experiments have been successful and it is understood that plants utilizing the process are to be erected in New Hebrides, Fiji, Solomon Islands, Society Islands and in New Guinea. The process is to be worked in the coconut groves themselves. The expense of drying the coconuts into copra will thus be eliminated, while it is claimed that the oil produced is virtually water-white and contains practically no free fatty acids. The extracted oil requires no further treatment. The process is also reported to have been found successful in the production of merchantable oil from linseed and cottonseed "foots." *Chemical Trade J. & Chem. Eng.* November 10.

—o—

An effective emulsifier and detergent is made from soft soap and starch by the following process: Place 7 parts of potato flour in a mixer, add 43 parts of soft soap and mix at ordinary temperatures. Then add 50 parts of caustic soda in small portions. After sufficient stirring, draw off the dry, loose powder. To shorten the time of stirring, the mixer may be cooled so that the reaction takes place at 40°C. Rohm & Haas A. G. German Patent 568,703. March 24, 1931.

—o—

A satisfactory soap results from treatment of soybean meal. The extraction residue, after the removal of oil, is hydrolyzed with hydrochloric acid and then saponified with caustic soda or soda ash. To obtain a good soap, the hydrolyzed preparation must be freed from dirt, cellulose, etc., by filtration of the colloidal solution. G. S. Petrov and S. I. Dimakov. *Chem. Zentrallblatt.*

—o—

Soap may be made from waste oil (rice bran, pupa or fish oil) by treating the oil with methyl or ethyl alcohol containing an inorganic acid to give the methyl or ethyl ester. The ester is then separated from excess alcohol, washed with water, distilled in vacuo and saponified with an alkali to give a soap. K. Takagi. Jap. Patent 93,925. Jan. 6, 1933.

—o—

Sulfonic acids of stearic, palmitic or oleic acid result from the treatment of the fatty acid with a sulfonating agent stronger than concentrated sulfuric acid, such as sulfur trioxide, oleum or chlorsulfonic acid at temperatures between 20 and 100°C. Products are wetting or emulsifying agents stable to acids and hard water. F. Gunther and J. Hetze. U. S. Patent 1,926,142. September 12, 1933.

—o—

Detergents are made by treating waste dairy produce, for example sour milk, curds, or decomposed cheese, with an alkaline substance, for example alkali or alkaline earth metal hydroxide or carbonate. Such treatment neutralizes the hydroxy acids present in the raw materials. Then the resulting mass is mixed with a small proportion of a hydroxy acid, for example those in apple or lemon juice, together with salts of such acids. The hydroxy acid content of the raw material may be increased by lactic acid fermentation. A. Schreiber and F. Martens. British Patent No. 379,318, August 24, 1932.

—o—

Hard soaps are made by the saponification of fats, fatty acids or fatty oils at a temperature of 125 to 160 degrees C. and a pressure of two to six atmospheres with the required quantity of sodium hydroxide and potassium hydroxide. Salts, for example sodium chloride or potassium chloride, also carbonates, borates, sulfates or phosphates of the metals, or sodium silicate or borax, may be included in the saponification mixture to lower the solidification temperature of the soap. After saponification additional soft fat or oil may be added to form a soap which containing 60 to 70 per cent fatty acids and which is suitable for milling or making flakes or powder. F. W. Leffer. British Patent No. 379,760, September 5, 1932.

—o—

Fatty acids, for example oleic acid or the acids obtained from copra, castor oil, olive oil, peanut oil or palm oil, are treated with solutions of alkali metal or ammonium sulfite or thiosulfate. The products obtained are sparingly soluble compounds, which on subsequent treatment with caustic alkali or alkali metal or ammonium carbonate, yield soluble crystalline substances. The detergents may be obtained directly by the action of the two agents in admixture on the fatty acids. Raymond Vidal. British Patent, September 1, 1932.

—o—

Stock for making soap, such as grease, etc., preferably filtered through suitable earths or carbon, gives a non-porous soap after it has been bleached by means of a non-alkaline or acid solution of hydrogen peroxide (not greater than one per cent H_2O_2 on the weight of the stock) at a temperature of 45 to 55 degrees C. until all the water is decomposed. S. G. Turnbull. United States Patent No. 1,890,121.

The *Manufacturing* CHEMIST

PHARMACEUTICAL COSMETIC & PERFUMERY TRADE JOURNAL

Embracing the Manufacture of Drugs, Pharmaceuticals, Cosmetics, Toilet Preparations, Photographic Materials, Soaps, Fine Chemicals, Essential Oils, Perfumes, Dental Preparations, Patent Foods and Machines in Liquid, Powder, Paste, Pill and Tablets, Polishes, Antiseptics, Germicides.

SOME RECENT ARTICLES

Wood Polishes, by A. B. Searle.
The Removal of Superfluous Hair, by Dr. Albert Ellmer.
Essential Oils in India and Ceylon—A Review.
The Fatty Alcohols and their Sulphonated Products.
Metal Polishes, by Alfred B. Searle.
Colour Combinations in Cosmetics, by H. Stanley Redgrove.
The Malaria Scourge, by Dr. Konrad Schulze.
New Perfumes and Cosmetics.
Recent Advances in Anaesthesia, by Dr. Konrad Schulze.
The Manufacture of Vanishing Creams, by Thomas McLachlan.
Medicinal Hair Preparations, by Frank H. Sedgwick.
Loose Powder Containers, by H. Stanley Redgrove.

Beside the GRIFFIN.

LEONARD HILL LIMITED
231 STRAND LONDON. W. C. 2.
(Opposite the Law Courts)
ENGLAND

Publishers of

FOOD MANUFACTURE, PAINT MANUFACTURE, FOOD INDUSTRIES MANUAL, RUBBER INFORMATION, CHEMICAL ENGINEERING & CHEMICAL CATALOGUE.

Code Developments

(*From Page 57*)

The above is on the assumption that the engineer is paid on an hourly rate. If he is paid a weekly salary, regardless of whether he works 48 hours, 44 hours, 40 hours, or less, then the overtime provisions in Article III B, does not apply.

Question: We are particularly interested in getting a definite interpretation on Paragraph 5, Section A, Article 3, in order that we may determine whether engineers and firemen may work 48 hours per week without the payment of over-time. It is not clear to us whether employees coming under this catagory are allowed to work 48 hours without being paid for overtime, or whether if they work 48 hours they must be paid overtime 8 hours in excess of the average of 40 hours per week.

Answer: Engineers and firemen may not work 48 hours per week without the payment of 8 hours' overtime, unless they are paid upon a weekly basis. Under the provision of Article III, Paragraph 3, *any* employee on *an hourly rate of pay* who works in excess of hours in any one day or in excess of 40 hours in any week, must be paid not less than one and one-third the regular hourly rate for the excess hours. The exceptions mentioned in Section 1 to 5 of Paragraph A of Article III, are exceptions only as to the number of hours employees may work, but do not affect in any way the wage rates nor the application of Paragraph B of Article III.

Question: In Article III, Section 1 to 5 under Paragraph A exempt certain classes of worker from the 40-hour work week. However, in the next Paragraph B, it very definitely states that if *any* employee on an hourly rate works in excess of 8 hours per day, or in excess of 40 hours in any calendar week, that the pay shall not be less than one and one-third the regular hourly rate. Does this mean that overtime must be paid for all the classes of employees excepted under Sections 1 to 5 of Paragraph A of Article III, if they work beyond 8 hours in any one day or 40 hours in any one week?

Answer: Yes. *Any* employee on *an hourly rate* of pay *must* be paid overtime for work in excess of 8 hours in any one day or 40 hours in any one week.

Question: The trucking industry is operating on a temporary substitution for the P.R.A. of 48 hours a week and that the Code of Fair Competition for the Trucking Industry submitted by American Trucking Associations, Inc., also proposes a 48-hour week. Can a soap manufacturing plant apply the trucking industry's 48-hour week code to drivers of its own soap trucks?

Answer: No. The provision of Article III, A, 4, govern all truck drivers in the soap and glycerine industry. As to pay, the provision of IV, A and III, B also apply.

Article IV. A

Question: Does Article IV, A, apply to those on weekly pay?

Answer: Yes. Weekly pay for all employees, except those mentioned in Sections 1, 2, 3, and 4 of Paragraph A of Article IV, must be the equivalent of the minimum amount stated in Article IV, Paragraph A. For example, a watchman in the North paid $18.00 *a week* can only work 45 hours a week, which is at the minimum rate of 40 cents an hour; if he works 60 hours a week, his *weekly* pay must be the equivalent of 40 cents per hour, or $24.00; and the same principle applies to any number of other hours worked or to employees of *all* classes who are paid on a *weekly rate*, except those mentioned in Article IV, A, 1, 2, 3, and 4. A salesman in the North for example, whether on a commission or other basis of *weekly* pay, must, if he is required to work as much as 40 hours a week be paid a minimum of $16.00; if he is required to work 50 hours a week he must be paid a minimum of $20.00; and so on. Any supervisor, for example, who works 50 hours a week, and is on *weekly* pay, must be paid in the North at least $20.00, and in the South at least $17.50. These are simply illustrations of the general principle.

Question: A similar question with relation to watchman: If a watchman in the North works 72 hours a week, what must be his minimum pay?

Answer: Under Article IV, A, he must receive the equivalent of not less than 40 cents an hour. If paid on a *weekly* basis, he must therefore receive not less than $28.80 a week. If paid on an *hourly* basis, Article III, B, must also be considered. In that case his minimum rate of pay would be figured as follows:

40 hours at 40c equals	$16.00
32 hours overtime at time and one-third, or 32 x 40c x 1 1/3 equals	17.07
	$33.07

Article IV, A, 2

Question: Does the 90 per cent rate allowed in IV, A, 2, for certain employees during the first six months of their employment, apply only to new people hired since the Code went into effect, or would it apply to people now in our employ who have been employed less than six months, but first came to us before the Code took effect? In other words, would we be permitted under this clause to leave the rate at 30c an hour for employees who have been with us less than six months, or would it apply only to new employees who were hired after the Code went into operation?

Answer: The 90 per cent rate applies to anyone who has been in your employ less than six months, provided, of course, that the number of these employees does not exceed 25 per cent of the total number of engaged in the light tasks of wrapping, packaging and filling. The question as to when the Code went into effect does not affect this in any way at all. At the end of the first six months' employment for any employee coming under this classification, the full rate of pay for this class of labor, that is, 32½ cents an hour (or 30c in southern states) must apply.

Application of the Soap and Glycerine Code to Manufacturers Who Make Other Products in Addition to Soap and/or Glycerine

(*Not officially adopted by Code Authority, Jan. 8, 1934*)

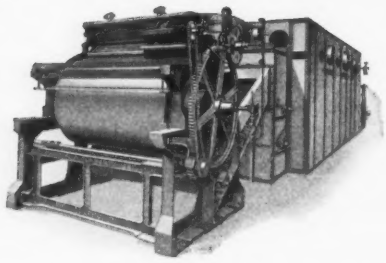
The Code of Fair Competition for the Soap and Glycerine Manufacturing Industry applies to all soap and/or glycerine manufacturing in Continental United States. It makes no difference how much or how little soap or glycerine is made, or how such preparation compares with the volume of other goods made by the same manufacturer. If any soap or glycerine is made, the manufacturer thereof is subject to and must comply with the provisions of the Soap and Glycerine Code insofar as the production of soap and/or glycerine is concerned.

A manufacturer who makes products which come under more than one code, must observe every such code in regard to the manufacture and/or distribution of products coming within the scope of such code and to the extent specified therein. No manufacturer may choose the code or codes he will work under. They apply to the products defined in each, regardless of the personal views or desire of the manufacturer.

The above are the rulings made by the NRA to date under the authority contained in the National Industrial Recovery Act.

If a manufacturer is convinced that to be obliged to comply with more than one code would be an undue hardship on him, he may request the NRA for an exemption from complying with those codes which he thinks should not apply to his business. It is within the discretion of the Administrator of the National Industrial Recovery Act to grant such exemptions if the manufacturer can show clearly that it would be unjust to insist that he comply with the codes from which exemption is requested.

A request for exemption must be substantiated by a sworn statement of facts which support the claim that to comply with a particular code would work an undue hardship on the manufacturer. The request should also consent to making available all records, statistical data, and other information which the NRA might require in building up a factual record on which the Administrator may take action. In making a request for exemption, a manufacturer should state under what code or codes he can operate without working an undue hardship on him. A request for exemption should be made direct to the NRA at Washington and should be accompanied by a statement as to whether or not the manufacturer is operating under the President's Reemployment Agreement or any approved code. Notice that a request for exemption is being made should be sent to the undersigned at the same time the request is sent to Washington.



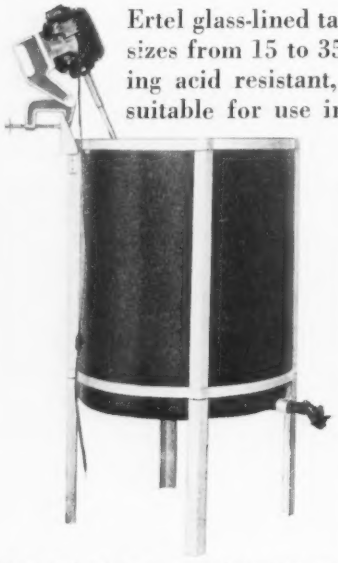
THIN CHIPS!

This new Proctor Dryer produces Soap Chips of transparent thinness—exactly the kind now in popular demand for package laundry soap—also the chip that can be produced most efficiently in making cake toilet soap.

New throughout—new chilling rolls—new dryer, this machine not only produces the most satisfactory soap chip, but it excels in high capacity, saving of floor space, reduced steam consumption, low cost of operation. Write.

PROCTOR & SCHWARTZ, Inc.
PHILADELPHIA

ERTEL MIXERS AND MIXING TANKS



Note the handy grip, an exclusive feature of the Ertel Mixers, which makes them truly portable.

Ertel glass-lined tanks are built in sizes from 15 to 350 gallons. Being acid resistant, they are most suitable for use in the manufacture of soap.

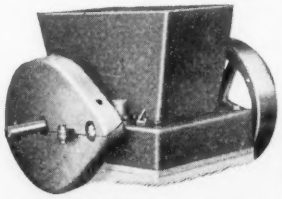
Manufacturers of:

Asbestos Disk Filters, Asbestos Filter Sheets, Portable Mixers, Portable Bottle Fillers, Alleghany Stainless Steel Tanks, Glass Lined Tanks, Electrically Driven Pumps.

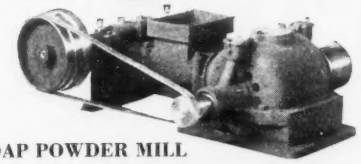
ERTEL ENGINEERING CORPORATION
108 EAST 16th STREET NEW YORK, N. Y.

BLANCHARD

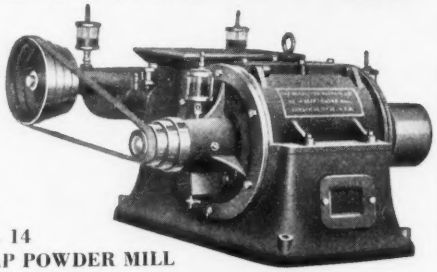
SOAP POWDER MACHINERY



NO. 9 CRUSHER



NO. 10-A SOAP POWDER MILL



NO. 14
SOAP POWDER MILL

WRITE FOR OUR DESCRIPTIVE CIRCULARS

THE BLANCHARD MACHINE COMPANY
14 STATE ST. CAMBRIDGE, MASS., U. S. A.

Aluminum-Nickel Catalyst for Hydrogenation

Aluminum-nickel catalysts, which are used for the hydrogenation of oils in the place of the simple nickel catalyst, are easily oxidized after treatment with sodium hydroxide solution and washing with water. The catalyst is then very active and insensitive to impurities such as sulfur, so that hydrogen, obtained from the contact process, may be used in hardening oils with this catalyst. The composition of the catalyst does not exert any great influence on the course of the hardening reaction, but there must be a definite proportion of nickel in the catalyst to obtain good results. The friability of the catalyst increases with its nickel content. Activity is strongest with a catalyst in form of pieces of various size containing 27 to 28 per cent nickel. When the surface of the catalyst is strongly corroded by the action of caustic soda, the temperature of hardening is considerably lowered, while its amounts to 200 degrees C. when the surface is only slightly corroded. It is claimed that the catalyst is easily and quickly prepared, that it is stable for long periods, that it allows the lowering of the temperature of hydrogenation, that it avoids filtering the hardened product thus avoiding loss of fat thereby and also due to other causes, that it reduces operating costs. Bag, Wolokitin and Jegunow. *Masloboino Schirow. Djelo*, 1933, volume 9, number 4, pages 16 to 17.

—o—

Abrasive Polishes

(*From Page* 25)

boiling point sufficiently high to prevent the mixture from "drying up" too rapidly and so becoming useless.

The vehicle may act as a detergent as well as a vehicle; this is particularly the case with pyridine[2] and some amino-compounds.

Water has a low suspensory-power, but it is cheap and, if plenty is used, is quite satisfactory except for the ease with which it evaporates.

Vegetable-oils are too greasy and turn rancid too easily to be popular; they also tend to leave smears on the polished surface.

Mineral-oils, including gasoline and some of the lighter fractions of petroleum, are too mobile and are lacking in "body" so that they do not retain solid particles sufficiently long in suspension. They have been extensively used in polishes. The fractions boiling at about 200° C. are usually more satisfactory than those of a lower boiling-point as they are rather more viscous and "dry up" less readily, but do not leave smears.

Essential oils, of which turpentine and the various synthetic substitutes, such as kienoil, pentene, dipentene, tetralin, hexalene, white spirit, etc., are the most important, are largely used in polishes. They serve their purpose well, but some have an objectionable odor.

[2] Eng. Pat. 278078 (1928).

Alcohol is occasionally used, but though it is an excellent solvent its suspensory power is low and it is too volatile to be really satisfactory.

During recent years many organic liquids have been used as vehicles in polishes, particularly those used for metals. By this means good use is made of liquids which may be regarded as by-products of an inert nature. In addition to these, kerosene, paraffin, and various products obtained in the cracking of oil or the distillation of coal are used.

For some polishes, a solvent for waxes is included in the vehicle—carbon tetrachloride, the diethers of ethylene glycol, dioxane and its homologues, and many other organic solvents. They are seldom employed for polishing bare metals, but mainly for metallic surfaces which have been lacquered or enamelled.

The chemical composition of the vehicle is of less importance than its physical properties, although it may have to be considered when waxes are present in the polish. There are many liquids available and a selection is usually made on a basis of trial and error. When once a suitable vehicle has been found, no pains should be spared to maintain its quality, and the chemical composition, density, viscosity, boiling-point, and other physical properties then become of great importance.

Colorants and Perfumes

THE colorants used in polishes vary from a light ochre, to impart a yellowish tint, through various shades of brown, due to umber or to aniline dyes, to black. The last-named is usually due to nigrosin which is cheaper and more effective than lamp-black. Rouge, as previously noted, is sometimes used to impart a reddish tint to polishes used specially for silver ware.

When dyes are used they are chiefly basic dyes and should, in any case, be soluble in the vehicle employed. Many dyes are available and as there is little difference in their suitability a wide choice is possible. Dyes are preferred to pigments, such as ochre, rouge, and lamp-black, because the dyes do not interfere with the action of the abrasive nor do they create smears.

The perfumes used in polishes are chiefly added to mask the unpleasant odor of the filler or vehicle, but some are added to create a pleasant odor. Cheapness is essential, but should not be overdone, and poisonous odorants should be avoided. If the chief need for a perfume is to counteract the disagreeable odor of the vehicle: by changing the vehicle or by using the same one but of a more refined quality the need for a perfume is greatly reduced—usually with an appreciable saving in cost. In this respect, many of the newer synthetic vehicles are preferable to the ones which have been in use for many years.

Nitrobenzene, known commercially as "oil of mirbane," has been extensively used as a perfume for polishes. Several fatal accidents have been traced to its use and it should, therefore, be discontinued.

(*To be Continued*)

FULD MAKES IT FOR THE LEADERS

IN BULK
or packaged under PRIVATE LABEL

VITOZONE *processed* DROP-BLOX

New vaporizing perfumed deodorant blocks for DROP-LOK (Patent Pending) strainer.

EASILY INSERTED NON-REMOVABLE

Made by the original Vitozone process which seals mellowed perfumes evenly into pure paradichlorobenzene. These blocks are stamped out under pressure up to 80 tons and insure regular evaporation and controlled perfuming.

Vitozone blocks deodorize for much longer periods than ordinary blocks.

porcelain URINAL STRAINER

CORRECTS *odors* AT THE SOURCE

Fill Without Touching — Deodorant Block fillers slip in easily through the slot in the back.

Inconspicuous — Porcelain unit matches fixtures and Vitozone Drop-Blox inside, are not visible.

Theft Proof—Unique design traps Vitozone Drop-Blox so that they cannot be removed.

On Walls Too — When desired, Drop-Lok strainer may be attached to walls, making an attractive theft-proof-block container.

Free Vaporizing — Drop-Lok strainer is scientifically designed to allow ample exposure of blocks for efficient deodorizing.

Non-Clogging—Smooth, all porcelain surface eliminates corrosion and rust which might roughen surfaces and cause clogging.

Easily Attached — Drop-Lok strainer is installed without drilling holes, using self locking bolts (furnished).

FULD BROS., INC.

2310 FREDERICK AVENUE
BALTIMORE, MARYLAND

INHERENT STABILITY

Only recently we examined a sample of our Basic Pyrethrum Extract which was well over two years old and its toxicity was not impaired in the least.

This fact conclusively proves that our POWCO BRAND Basic Pyrethrum Extract is *stable.* Furthermore it is protected against oxidation and hydrolysis by being in a neutral petroleum solution free of moitsure, and free from air.

POWCO BRAND Basic Pyrethrum Extracts have inherent *stability* because they are the only highly concentrated extracts made by selective cold direct extraction.

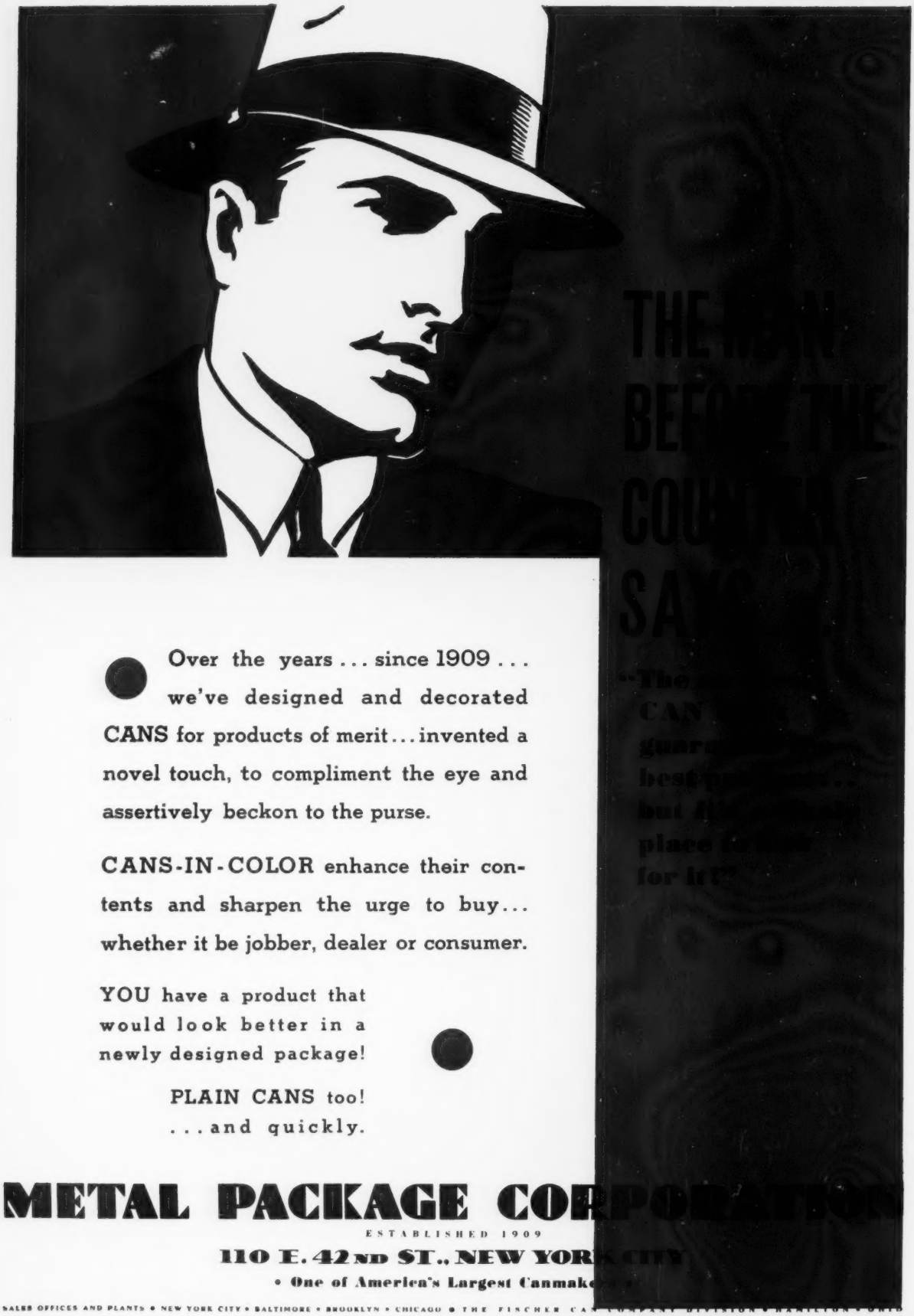
POWCO BRAND Pyrethrum Products assure you more standardized killing power in your finished insecticide and, therefore, more value for your money.

"Killing Power—That's the Thing"

JOHN POWELL & CO., Inc.

Specialists in Pyrethrum Products

114 E. 32nd St. New York, N. Y.



Over the years . . . since 1909 . . . we've designed and decorated CANS for products of merit . . . invented a novel touch, to compliment the eye and assertively beckon to the purse.

CANS-IN-COLOR enhance their contents and sharpen the urge to buy . . . whether it be jobber, dealer or consumer.

YOU have a product that would look better in a newly designed package!

PLAIN CANS too!
. . . and quickly.

METAL PACKAGE CORPORATION

ESTABLISHED 1909

110 E. 42ND ST., NEW YORK CITY

• One of America's Largest Canmakers •

SALES OFFICES AND PLANTS • NEW YORK CITY • BALTIMORE • BROOKLYN • CHICAGO • THE FISCHER CAN COMPANY DIVISION • HAMILTON • OHIO

STAINLESS CATTLE SPRAY

A light colored liquid for spraying cattle to rid them of annoying flies and insects. Contains the active principle of pyrethrum. Will not stain, blister or burn, and has no disagreeable odor. A popular product with farmers and dairymen. Supplied in bulk to the distributing trade only.

PES-TOX

An efficient liquid household insecticide of the pyrethrum type, pleasantly scented. Surpasses in effectiveness the standard of the National Association of Insecticide and Disinfectant Manufacturers. Each lot carefully controlled by the Peet - Grady method. Supplied in bulk for distributors to resell under their own trade-names. Also suppliers of pyrethrum concentrate.

PINE OIL DISINFECTANTS

made from pure steam-distilled pine oil, and agreeable in odor and dilute with water to form rich, milk-white emulsions.

HIPINE, made according to the formula of the Hygienic Laboratory has a phenol coefficient of four to five.

ORPINE, prepared from slightly different ingredients, has a coefficient of three to four.

CLEARPINE is a specially refined product, very light in color, and has a phenol coefficient of four to five.

All are high-grade products, reasonably priced. Every lot chemically controlled and standardized. Supplied only in bulk to the distributing trade for resale under their own names and labels.

BAIRD & McGUIRE, INC.

HOLBROOK, MASS. **ST. LOUIS, MO.**

New York City and New Jersey Representative

EASTERN STATES SUPPLY CO., 136 Liberty Street, New York, N. Y.

Phone: WOrth 2—3143

30 FOOT DRYER REDUCES COST

Here is one of the three steam-jacketed dryers used in the manufacture of Pyrocide 20. This dryer is shown without agitator paddles, which are normally in the dryers. The sole purpose of this step is to recover solvent (ethylene dichloride, patented) from the exhausted pyrethrum flowers. The Solvent comes off as a gas and is condensed and returned to storage to be used again. This reduces the solvent loss to a very small percentage.

We invite you to visit our plant and inspect our facilities and methods which we believe are unequalled. If you cannot make a personal visit, we will be glad to send you a copy of our new booklet, describing our process of manufacture.

PYROCIDE 20

STANDARDIZED EXTRACT OF PYRETHRUM FLOWERS

FACTS
About PYRETHRUM

A REVIEW of current literature and advertising on pyrethrum and concentrated pyrethrum extracts can be an interesting and somewhat amusing diversion. But you must read carefully because a cursory study of the claims advanced and figures cited may easily leave the reader more befuddled than entertained. We are reminded of remarks and statements quite generally circulated in the trade four years ago when McLaughlin Gormley King Company developed its process for the manufacture of a standardized concentrated pyrethrum extract. We were told then, "You're crazy." "It can't be done." "It's impossible."

In one important respect, the situation today is different. Today, it would seem that every manufacturer claims to be making a standardized extract. *But* there is no agreement on what is standardization, nor how to standardize an extract.

THE ANSWER IS SIMPLE

We think the answer is simple, and we believe those conversant with the known facts about pyrethrum will agree with us. In manufacturing a pyrethrum extract the first consideration must be the pyrethrin content of the flowers used. It is an accepted fact established by laboratory assays that the percentage of pyrethrins in commercial flowers varies from 0.4 to 1.2 percent, and quite obviously you must know what you put in a percolator before you can have any assurance of what will come out.

It seems reasonable to say, therefore, that a manufacturer can produce a uniform product *only* when he assays each lot of flowers immediately before extraction, and regulates the quantity of flowers used by known pyrethrin content instead of by weight.

CORRECT STANDARDIZATION

If this is done, and if, in addition, the process of manufacture is efficient and controlled, a standardized concentrate of pyrethrum can be produced, from which insecticides of constant killing power may be made. On the other hand, the manufacturer who merely uses a fixed weight of flowers will produce a variable concentrate which in turn will produce an insecticide of varying pyrethrin content and toxicity. Likewise a manufacturer who depends on an exporter's guarantee of pyrethrin content will produce a variable product.

Some still attempt to standardize their products by biological tests only. It is a generally accepted fact that biological standardization is not as satisfactory as chemical standardization because the biological tests are not as accurate as the chemical assays. Furthermore, it is sometimes difficult to tell whether variations in the biological tests are due to lack of uniformity in the different batches of insecticide or to lack of uniformity in the different cultures of test insects.

The first standardized concentrate ever offered to manufacturers of household insecticides and fly spray was Pyrocide 20. In five years, it has grown to be the leading product of its kind in the world. Its leadership and its successful record of performance merits your careful and serious consideration.

A BOOK OF FACTS

Since the publication of "Pyrethrum Flowers" by C. B. Gnadinger, it is a simple matter for anyone to get the facts about pyrethrum. "Pyrethrum Flowers" is a complete compilation in one volume of the known facts regarding pyrethrum.

The problems involved in the manufacture of insecticides, livestock sprays, horticultural powders, dusts and sprays, and the miscellaneous uses of pyrethrum are given thorough and lucid exposition. Its 270 pages, liberally illustrated, give information of decided value to all whose professions or businesses require knowledge of pyrethrum. $3.50 postage prepaid in U. S. A. and Canada.

Write McLAUGHLIN GORMLEY KING COMPANY, MINNEAPOLIS, MINNESOTA

Pyrethrum Specialists Since 1901

PYROCIDE 20

STANDARDIZED EXTRACT OF PYRETHRUM FLOWERS

THE HOUSE OF McCORMICK
Builds on Quality

TO manufacture the best has always been the fundamental policy of McCormick & Company. Because of this no single item within the scope of buying, manufacturing, and selling is ever slighted.

For instance, there has been rapid progress made in the design of equipment used in the manufacture of insecticides. Rather than use machinery that has become obsolete before it is worn out McCormick & Company install new equipment. They are constantly experimenting with new methods and have become leaders in developments along that line, operating the most modern milling and extracting equipment.

This machinery is in the McCormick & Company building. It is owned and operated by McCormick & Company. Thus there is no divided responsibility, no divided profits, and McCormick & Company can at all times accurately control and test each step in the process of manufacture.

McCormick & Company are interested in the ultimate aim of all merchandising consumer acceptance. By marketing a finished insecticide of the highest quality their fingers are on the pulse of the user. By virtue of this and their 44 years experience in manufacturing and marketing insecticides McCormick & Company are in an exceptional position to supply legitimate manufacturers with the highest quality materials most suitable for their individual needs.

PYRETHROL 20 . . . .

means QUALITY. This superior pyrethrum concentrate is the result of expert knowledge, years of experience, and the most modern equipment. It is chemically and biologically standardized, available in the following vehicles: Camphor Oil, Acetone, Alcohol, Carbon Tetrachloride, Deo Base, and Kerosene. The price varies according to the solvent.

Pyrethrol 20 is standardized at 2.15 grams of pyrethrins per 100 c.c. It is also available in any concentration up to 5 grams of pyrethrins per 100 c.c. at a proportionate increase in cost.

MEMBER NATIONAL ASS'N INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

PYRETHRUM & DERRIS

A complete line of these insecticides is available through McCormick & Company. This line includes powdered, granulated and bulk Pyrethrum, Pyrethrum-Rotenone concentrates that will not separate when diluted. Derris Powder and Derris Concentrated Extract.

The same expert attention that makes Pyrethrol 20 the outstanding pyrethrum concentrate is given to all these products. They are standardized biologically and chemically so that you know the "killing power" you buy.

REGISTERED TRADE-MARK

Here are the one hundred and seventy McCormick & Company salesmen throughout the United States and Canada who are at your service.

McCORMICK & CO., INC.

Standardized Pyrethrum and Derris Insecticides

BALTIMORE, MD., U. S. A.

NEW YORK PHILADELPHIA PITTSBURGH MEMPHIS HOUSTON SAN FRANCISCO TORONTO, CAN.

PARATINTS
COLOR AND PERFUME

And in one operation! That's why makers of paradichlorobenzene blocks, bath salts, and moth balls find Paratints effect a real saving.

Paratints come in six colors—from cerise to violet—and are matched with popular floral scents. Paratints color uniformly . . . cover the odor of paradichlorobenzene effectively.

Paratints are available in two price ranges:

Series "A"	$2.00 a pound
Series "B"	$4.50 a pound

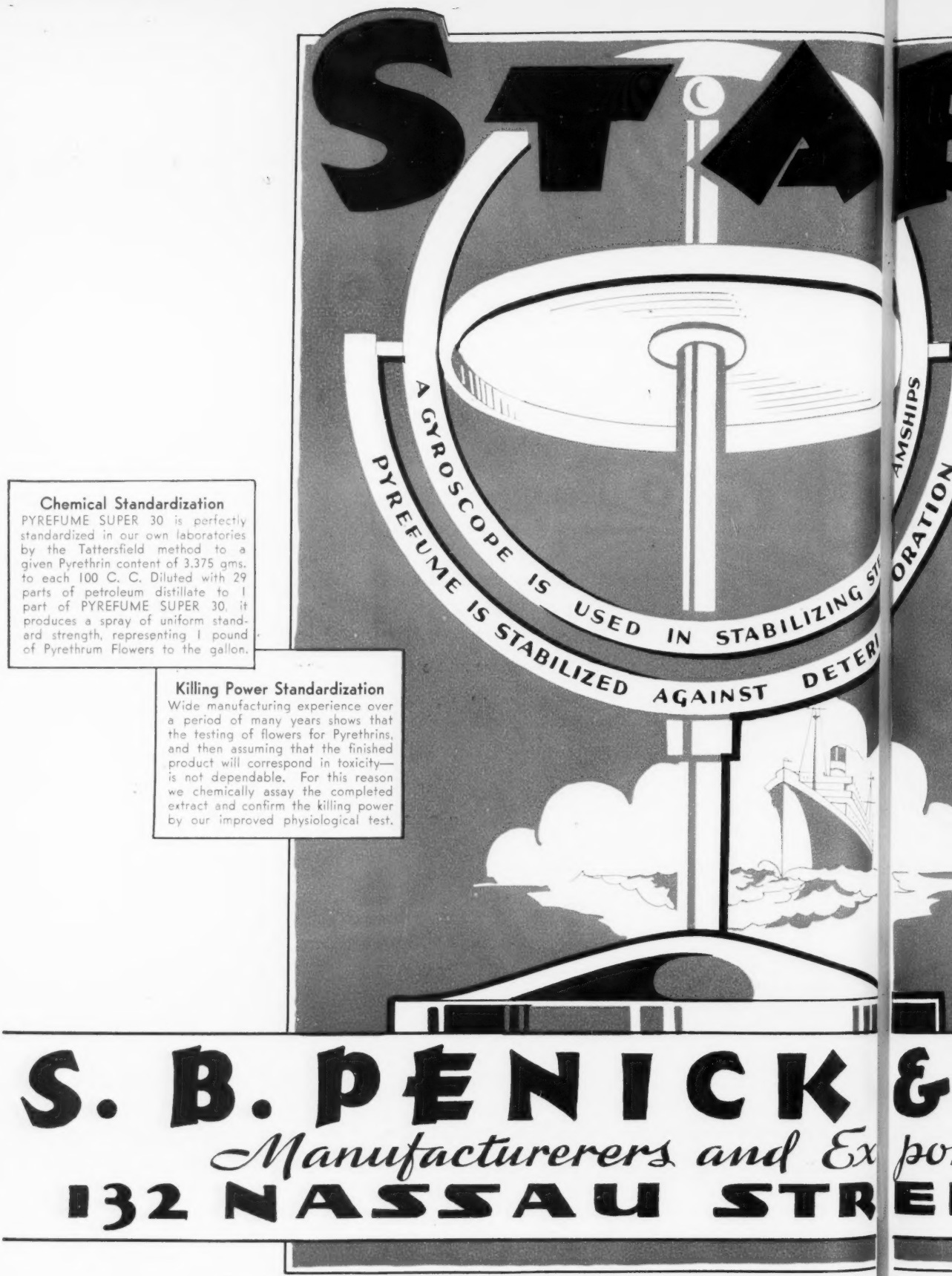
NRA MEMBER U.S. WE DO OUR PART

GIVAUDAN-DELAWANNA INC.

80 FIFTH AVENUE, NEW YORK, N. Y.

BRANCHES

Philadelphia, Los Angeles, Atlanta, Cincinnati, Detroit, Dallas, Baltimore, New Orleans, Chicago, San Francisco, Montreal, Havana



Chemical Standardization

PYREFUME SUPER 30 is perfectly standardized in our own laboratories by the Tattersfield method to a given Pyrethrin content of 3.375 gms. to each 100 C. C. Diluted with 29 parts of petroleum distillate to 1 part of PYREFUME SUPER 30, it produces a spray of uniform standard strength, representing 1 pound of Pyrethrum Flowers to the gallon.

Killing Power Standardization

Wide manufacturing experience over a period of many years shows that the testing of flowers for Pyrethrins, and then assuming that the finished product will correspond in toxicity—is not dependable. For this reason we chemically assay the completed extract and confirm the killing power by our improved physiological test.

S. B. PENICK &

Manufacturerers and Ex po

132 NASSAU STR E

BILITY

in
PYREFUME SUPER 30

is accomplished by combatting the effect of oxidation and hydrolysis—the two principal causes of deterioration—just as stability in navigation is secured by gyroscopic control to neutralize the action of ocean currents and waves.

By standardizing on the stabilized extract, PYREFUME SUPER 30, you are insured of a finished insecticide which retards deterioration on the dealers' shelves. You are enabled to supply a product which will have superior killing power at the time of use. With PYREFUME SUPER 30 you eliminate danger of serious deterioration—avoid the problems of returned stock, consumer dissatisfaction, etc.

The stability of PYREFUME SUPER 30 is not an accident, but rather the result of extensive work in our laboratories. Our studies showed oxidation and hydrolysis to be the two principal causes of pyrethrum deterioration which had to be combatted before stability could be achieved. On the basis of these tests we have developed an improved method of manufacture. It now enables us to offer a product which will resist the effects of oxidation and hydrolysis for an extended period, thus guaranteeing a **much longer toxic life** than other pyrethrum products being marketed.

Stabilize with PYREFUME SUPER 30

& COMPANY

porters for the Trade only

EET, NEW YORK

Specialists in doing
one thing well

Baird's

Reg. U. S. Patent Office

For over a quarter
century manufacturers of

TESTED and CERTIFIED

DISINFECTANTS

for the wholesale trade

BAIRD & McGUIRE, Inc.

HOLBROOK, MASS. ST. LOUIS, MO.

I&D MA
INSECTICIDE AND DISINFECTANT MANUFACTURERS ASSOCIATION

INSECTICIDE AND DISINFECTANT SECTION

A Department of SOAP

SOAP is official publication of *The National Assn. of Insecticide and Disinfectant Manufacturers.*
HARRY W. COLE, Secretary, Holbrook, Mass.

EDITORIAL

A RECENT price reduction by a prominent liquid insecticide manufacturer, which brought forth some criticism in the trade, again focuses attention on the question of retail insecticide prices. For three years, the sale of liquid household sprays has been on the decline. Is price a factor? There is no doubt that it is to a considerable degree. To sell a pint of spray retail for 59 cents, or even 49 cents, has become increasingly difficult. Its purchase and use has been cut down to absolute necessity at the prices current during the past two years. Is it any wonder that the cheaper, lower-grade sprays have eaten into the market during the past few years? This question of price is the one outstanding problem which the insecticide manufacturers are going to have to solve in the near future if they hope to turn their sales curve upward again.

——o——

OPENING its twentieth annual convention with battle lines drawn by several groups to fight out differences arising primarily over disagreement on the proposed code for the industry, the National Association of Insecticide & Disinfectant Manufacturers closed its meeting last month in New York with most controversial questions amicably settled. Not only was the meeting one of the most lively and argumentative in the history of the Association, but it was also one of the best attended. Every section of the country was represented at the regular sessions and the code meeting which followed.

——o——

THE differences in code requirements between the manufacturers of sanitary products who sell primarily for resale, and those who sell direct to industrial, institutional and other consumers were brought out very strongly at the New York code meeting. The result was to split the proposed code of trade practices into two sections and to appoint a committee headed by M. M. Marcuse, president of the West Disinfecting Company, to look after the interests of those firms selling direct to consumers.

——o——

THE fear of exterminators and fumigators that those in their industry who manufacture materials for use by themselves in their service work will be compelled to comply with the insecticide and disinfectant code, is in our belief unfounded. We think that this is the result of a misunderstanding and that the entire matter will be taken care of to their satisfaction in Washington.

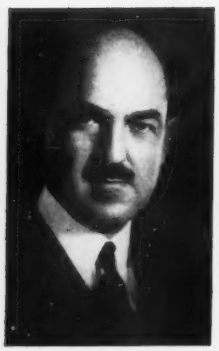
Officers and Board Members for 1934—

Peter Dougan
Reelected President
Merck & Co.

W. J. Andree
Elected 1st V. P.
Sinclair Refining Co.

Dr. Geo. Reddish
Elected 2nd V. P.
Lambert Pharm. Co.

John Powell
Reelected Treasurer
John Powell & Co.



S. H. Bell
Board Member
Koppers Products Co.

J. L. Brenn
Board Member
Huntington Labs.

W. H. Gesell
Board Member
Lehn & Fink, Inc.

H. W. Hamilton
Board Member
White Tar Co.

Harry W. Cole
Board Member
Baird & McGuire, Inc.

C. P. McCormick
Board Member
McCormick & Co.

Dr. C. H. Peet
Board Member
Rohm & Haas Co.

S. S. Selig
Board Member
The Selig Co.

Dr. Robert C. White
Board Member
Robt. C. White Co.

W. J. Zick
Board Member
Stanco, Inc.

Record of 20th Annual Insecticide and Disinfectant Meeting

THE Twentieth Annual Convention of the National Association of Insecticide & Disinfectant Manufacturers was held on December 11 and 12 at the Hotel New Yorker, New York, and was followed on December 13 by an all-day open discussion of the insecticide and disinfectant code under the auspices of the Association. Peter Dougan of Merck & Co., Rahway, N. J., was re-elected president for 1934. The complete list of 1934 officers and members of the Board of Governors follows:

Officers

President: Peter Dougan, Merck & Co., Rahway, N. J.
1st V. P.: W. J. Andree, Sinclair Refining Co., N. Y.
2nd V. P.: Dr. G. F. Reddish, Lambert Pharm. Co., St. Louis.
Secretary: John H. Wright, Zonite Products Corp., N. Y.
Treasurer: John Powell, John Powell & Co., N. Y.

Members of the Board

Samuel H. Bell, Koppers Products Co., Pittsburgh.
J. L. Brenn, Huntington Labs., Huntington, Ind.
Harry W. Cole, Baird & McGuire, Inc., Holbrook, Mass.
William H. Gesell, Lehn & Fink, Inc., Bloomfield, N. J.
H. W. Hamilton, White Tar Co., Kearny, N. J.
C. P. McCormick, McCormick & Co., Baltimore.
Dr. Charles H. Peet, Rohm & Haas, Inc., Phila.
S. S. Selig, The Selig Co., Atlanta, Ga.
Dr. R. C. White, Robert C. White Co., Phila.
William J. Zick, Stanco, Inc., New York.

The annual meeting marked the resignation of H. W. Cole as secretary after serving for eleven years in that capacity and the election of John H. Wright of Zonite Products to succeed him. Coincident with the election of Mr. Wright as secretary, the office of the Association was transferred to the Chrysler Building, New York, where it is now located. The meeting also marked the voluntary retirement from the Board of Governors of two of the oldest members in point of service,—C. C. Baird of Baird & McGuire, Inc., and Fred A. Hoyt of the Frederick Disinfectant Co., Atlanta, Ga. Mr. Cole was elected a member of the Board for 1934 upon his retiring as secretary.

The annual banquet, held at the close of the regular sessions on Tuesday evening in the North Ballroom of the Hotel New Yorker, was attended by 150 members and guests. The banquet was in honor of H. W. Cole, the retiring secretary. A three-hour floor show was put on during the banquet by the entertainment committee. There were no speakers or speakers' table. The only event of seriousness during the evening was a short address by Dr. Robert C. White, a past president of the Association, in which he eulogized Mr. Cole and his record as secretary, and presented him with a purse from the membership.

APPROXIMATELY one hundred manufacturers of insecticides and disinfectants attended a meeting December 13 in the Hotel New Yorker, New York, and participated in discussion of the latest revised draft of the proposed code of fair competition for the industry. Peter Dougan, Merck & Co., president of the National Association of Insecticide and Disinfectant Manufacturers presided at the morning session and Dr. Robert C. White, Robert C. White Co., chairman of the code committee of the association, presided at the afternoon session. While the meeting followed the close of the annual convention of the association, it was an open meeting of the industry and not an association function.

The principal point of controversy which arose was concerned with the membership of the code committee. The proposal presented to the meeting called for a committee of nine members. Of these two were to be elected from outside the association, two were to represent the petroleum companies and the remaining five to come from the association. In the selection of the five members from the association a number of disinfectant firms felt that proper and sufficient representation had not been given to the disinfectant industry. A protest was filed following a meeting of representatives of some fifteen disinfectant firms.

The other topic which occupied most attention was the section of the code dealing with trade practices. A number of manufacturers who sell in bulk direct to consumers objected to the publication of price lists as provided for in the code, and it was agreed at their suggestion to split the industry into two divisions as far as

trade practices are concerned, with the group of direct bulk sellers being allowed to adopt their own set of trade practices, eliminating the provisions involving publication of price lists. M. M. Marcuse, West Disinfecting Co., was appointed chairman of a committee to enable this group to formulate its revised set of trade practices.

The discussion at the morning meeting was largely concerned with the formal provisions of the code, set-up of definitions, the code committee, etc. A representative of the American Cyanamid & Chemical Corp. suggested that to avoid confusion the definition of insecticide in the code be changed to exclude specifically cyanide products, arsenicals, paris green, etc. The possible inclusion of the word "antiseptic" was also discussed, the decision being to eliminate it to avoid conflict with the drug code.

A number of changes in the code since the Washington hearing were reported by Dr. Robert C. White. The Southern differential on wages has been eliminated and the hours of watchmen have been cut down to 56 per week. The clause for old or partially incapacitated employees has also been revised to bring it into line with the model code. Hours are set at 40 per week, with a maximum of 8 in any one day. Wages which apply are 40c per hour for men and 35c for women.

The major topic at the morning session, as indicated above, was the size and membership of the code committee. Joseph Oppenheimer, West Disinfecting Co., questioned whether two representatives of the independent insecticide manufacturers were necessary on the committee in addition to the representatives of the petroleum companies, indicating that this was giving an undue weight to the insecticide group. William Eddy, Rochester Germicide Co., also spoke along the same line as did Simon Selig, The Selig Co.; Henry Nelson, Chemical Supply Co., and Dudley Bachrach, Clifton Chemical Co. W. J. Zick, Stanco, Inc., and Walter Andree, Sinclair Refining Co., defended the position of the petroleum companies, pointing out that representation was essential in their case since they have a special problem in reconciling the various codes under which they must operate. J. A. Walsh, C. B. Dolge Co., argued that independent insecticide manufacturers do a very substantial portion of the total insecticide business as compared with the petroleum companies, and so are entitled to substantial representation on the code committee.

Following lunch, the afternoon session took up the trade practice section of the code. The suggestion was made by D. N. Calkins, Rochester Germicidal Co., that divisional groups be set up to cover trade practices, since the sale of bulk products direct to consumers presents such a different problem from the sale of packaged goods for resale. The point was raised that if it was necessary to give five days notice on changes in price schedules it would be impossible to enter speedy bids on government and institutional contracts. Melvin Fuld, Fuld Bros., and M. M. Marcuse, West Disinfecting Co., also advocated divisional groups, and after a short discussion it was voted to set up two groups—those who sell consumers and those who sell to jobbers for resale. Mr. Marcuse was appointed chairman of the direct selling group.

Payment for window display space was a topic which created much interest. A. S. Hickerson, Edgar A. Murray Co. objected to provisions in the code which governed this practice, and W. J. Zick, Stanco, Inc., also pointed out that to get good window space for display purposes, insecticide manufacturers must follow the policy of all other advertising buyers and pay for what they get. The consensus of opinion was that it be left to the code authority to differentiate between fair and illegal payments for window space.

Exchanging of goods was also discussed, it being generally agreed that for a seller to take back competitors goods and supply his own constituted a violation. Deletion of a portion of the section was suggested, however, allowing a seller to take back one item in his line and substitute another if desired. The "special service clause" also attracted interest, the interpretation placed on it being that only services involving *additional* costs would have to carry extra charges.

Dating invoices was discussed at length, it being finally agreed that some postdating was necessary to take up the slack in the early spring and encourage buying for later use. It was decided to allow 90 day dating up to June 1. The giving of free goods to accomplish the same purpose also came in for lengthy discussion. The consensus was that either free goods or a pre-season discount must be offered to encourage early buying, but the point was stressed by W. J. Zick, Stanco, Inc., that there must be a definite dead-line after which such special offers would be withdrawn. Otherwise their purpose would be defeated. It was finally decided to eliminate free goods, with the suggestion that discounts be allowed up to June 1. The meeting was in almost complete agreement on the free goods question, there being only one or two individuals who failed to agree that free goods had outlived its usefulness.

Besides the insecticide and disinfectant manufacturers present at the meeting there were a number of representatives of exterminating companies. They were concerned about a recent ruling of Captain Joseph F. Battley which indicates that exterminators who make their own products will come under the insecticide code. William Buettner, president of the National Association of Exterminators & Fumigators, agreed that exterminators who sold such manufactured products should come under the code, but insisted that exterminators who manufactured products only for their own use should be exempt. He suggested that a change be made in the insecticide code specifically exempting such firms, but was advised by Dr. Robert C. White, chairman at the afternoon session, that this was a subject which he should take up direct with Captain Battley who issued the recent ruling.

General Insecticide Committee

By C. P. McCormick

THE Insecticide Committee feeling that there was only one real issue to be considered, has devoted its entire energy during the last six months of the year towards seeing that the Code Committee was given first, middle and last place in the attention of the Association. The Committee will make its own report, but we feel that if the Code is accepted it will be enough work for any Association to have accomplished during the present year.

The sub-committees, such as the Standardization and Scientific, will make their own separate reports, but the General Committee will make no other report than the above except to say that it has not been inactive. A good many problems that had to be side-tracked until the Code is definitely established, will have immediate attention from the different sections and the new Committee should be able to make a splendid report in June of next year.

—o—

Scientific Section of the Insecticide Committee

By Dr. C. H. Peet

SUCH actual work as has been done by the Insecticide Committee is being reported to you by the Standardization Section. The Scientific Section is reporting to you herewith the developments which have appeared in the literature since our last meeting. Although the amount of work which is reported upon here is not particularly great, much of it is of particular interest to this Association.

We have followed our usual procedure of dividing the report into three parts; the first dealing with recent work on Pyrethrum; the second with the work on Rotenone; and, the third the published work on Synthetic Insecticides.

I—Pyrethrum

H. H. Richardson (J. Econ. Entomol., *26*, 252-259) has studied the extraction of the pyrethrins with kerosene and has found that down to a 45 mesh powder, the percentage extracted (80 per cent) is independent of the particular fineness extracted. Extraction of a 200 mesh powder yielded 90 per cent of the pyrethrum content and this is attributed to the fact that achenes, which contain most of the pyrethins, are not crushed in powders to 45 mesh, but are in powders of 200 mesh.

In a bulletin from the Michigan Agricultural Experiment Station, Dibble (Quarterly Bull. *15*, 219-21) has recommended the use of pyrethrum for the control of ticks and lice on cattle, sheep and horses during the Winter, though he recommends adherence to the established methods of parasite control during warm weather.

Gnadinger and Corl published a paper in *Soap* (*9* 82-85) which you have doubtlessly all read, in which they have stated that the pyrethrin content of Dalmatian pyrethrum flowers is equal to that of Japanese. They have blamed the inferiority of Dalmatian flowers to improper methods of harvesting and storage.

H. H. Richardson has published a paper (J. Econ. Entomol. *26*, 914-915) which deals with combinations of pyrethrum and rotenone in kerosene, so this could be reported in either section. We shall, however, report it here. He found derris extract acted more rapidly on houseflies than did kerosene alone and pyrethrum extract acted still more rapidly. On the other hand, he reported that the derris extract gave higher kills in 24 hours. A combination of 16.6 per cent of the derris extract and 83.4 per cent of the pyrethrum extract acted as rapidly as the pyrethrum alone and exceeded it in 24-hour kill. He reported that kerosene extracts some other substance than rotenone from derris root and this material seems to increase the toxicity of the extract to houseflies. Incidentally, he mentioned that kerosene extract of quassia and hellebore were little more effective than kerosene alone.

Isachenko and Goritzkaya (Bull. Plant Protection, U.S.S.R., *3*, 165-74 (1931) have tested pyrethrum cinerariaefolium, P. roseum and P. carneum in comparison with each other and have found P. cinerariaefolium to be most toxic. Petrov in the same journal (pages 155-158) has published a comprehensive review of methods for determining the pyrethrin content of pyrethrum flowers.

In Bulletin 401, of the Colorado Agricultural Experiment Station, Gnadinger, Evans and Corl have presented a preliminary report of factors affecting the pyrethrin content of pyrethrum grown in Colorado. They found that methods of drying the flowers did not affect the pyrethrin content. Shading the plant during the flowering period decreased the pyrethrin content. The pyrethrin content of flowers of the same state of maturity varied during the flowering period. Storage of ground flowers in airtight containers was not accompanied by abnormal loss in pyrethrin content over a 10-day period; storage at about 25-30° F. showed no pyrethrin decomposition over six months. Flowers dried on their stalks showed no increase in pyrethrin content over stalkless flowers. The pyrethrin content ranged from 0.9 to 2.07 per cent. No characteristic of the plants examined seemed related to the pyrethrin content.

In connection with the present use of steam atomizers for the application of pyrethrum sprays, it is interesting to note that Buchmann has reported (Z. Angeward. Entomol., *20*, 136-149) that the pyrethrins do not give a true solution in water but form, instead, a colloidal solution, the particle size lying between 0.01 and 0.001. The basic patent covering steam atomizers has, as you doubtless know, been issued to Burgess and Golley as U. S. Patent No. 1.926.579.

II—Rotenone

Dr. R. C. Roark, of the U. S. Dept. of Agriculture, has issued as U.S.D.A. Miscellaneous Publication No. 120, an 86-page digest of reports upon the insecticidal effectiveness of the derris species. This publication covers the period to the forepart of 1933 and deals principally with the application of derris extracts (rotenone) as agricultural insecticides. He, also, published a paper in the Jour. of Ind. & Eng. Chem. (*25*, 639-42) comparing rotenone with the pyrethrins and with nicotine as to effectiveness and discussing sources of rotenone.

In the same issue of this journal, R. W. Birdsall published an article in which he described the commercial preparation of rotenone-bearing roots for the market. The paper, also, discussed the stability of rotenone.

Spoon and Rowaan (Ber. Afdeel. Handelamuseum Vereen. "Koloniaal Inst." No. 79) have analyzed various samples of derris and lonchocarpus roots and have reported a very wide variation in rotenone content, ranging from 0.1 per cent to 10.4 per cent. They found D. elliptica to possess the largest percentage of rotenone.

A long paper by Jones, Gersdorff, Goodin, Campbell and Sullivan in the Jour. of Econ. Entomol. (*26*, 451-470) detailed an exhaustive study of the decomposition of rotenone and certain of its derivatives under the influence of light and air. They demonstrated that this decomposition is much more rapid in the light than in the dark. It also appears that the kind of light, e.g., ultraviolet, may influence the rate of decomposition. In the course of this work, they noted that a solution of derris extract containing 25 per cent of rotenone was more toxic to mosquito larvae than was pure rotenone.

According to an editorial in the Journal of the American Medical Association, the development of plants for the grinding of derris root and other rotenone-bearing insecticides raises hazards for the workers in the plants who breathe the dusts and thereafter develop numbness of the lips and irritations of the throat. (Anon. "Poisonous Insecticides and Plant Sprays," Jour. Amer. Med. Assoc., 101 (2): 126-127 (1933)).

Badertscher has reported that the addition of 0.05 per cent rotenone to a pyrethrum housefly spray definitely increases its killing power to flies. (Badertscher, A. E. "Rotenone in Fly-Sprays—Raising the Quality of Pyrethrum Fly Sprays by the Addition of a Constant Amount of Rotenone." *Soap*. 9 (8): 85, 87 (1933). Campbell, Sullivan and Jones presented a paper at the Meeting of the Eastern Section of the American Assn. of Econ. Entomologists in Philadelphia, November 23d, in which they arrived at the conclusion that rotenone acts more slowly than pyrethrum, but its effects are more certain. In a general way, their procedure was to spray flies with kerosene extracts of pyrethrum and of rotenone and to observe them at intervals of 24 hours, over a period of 3 days. Their first observations showed that more flies had been paralyzed by pyrethrum than by rotenone, but many of the pyrethrum sprayed flies recovered, and at the end of the 3-day period, the percentage of dead flies in the

The NEW KILLER--B-280
CHAMPION BASE HYDROCARBON OIL ---

--will DEFEND his TITLE against any and all FLIES etc.

Notice the remarkable odor before and after.

Notice to Manufacturers: We manufacture Base Hydrocarbon Oil only. We are not manufacturers of fly sprays.

B-280 is a product of Research. (When in Chicago visit our Research Laboratories at 3921 E. Ravenswood Avenue —15 minutes from the "Loop") (4500 square feet of floor space devoted to Petroleum Research for Industries).

Ask the Cleaning Industry about "STOD-SOL;" the Rubber Industry about "RUB-SOL" or "PETROBENZOL;" the Lacquer Industry about "TROLUOIL;" the Varnish Industry about "APCOTHINNER," they are all Internationally known "Industrial Naphthas" manufactured by this company. We now enter your Industry and offer "B-280" for your approval.

For technical data or samples, address the company at 3921 East Ravenswood Avenue, Chicgo, Ill.

ANDERSON-PRICHARD OIL CORPORATION

PRODUCERS AP REFINERS

OKLAHOMA CITY, OKLA.

BRANCHES IN ALL PRINCIPAL CITIES

rotenone cages was considerably higher than in the pyrethrum cages. It appears from these observations that rotenone exerts a delayed effect. This paper has not yet been published.

Danneel has compared the toxicity of rotenone and other derris constituents to fish. Assuming a toxicity value of 100 for rotenone, the following figures are obtained for other compounds: Dihydrorotenone, 90; isorotenone, 66; dihydrorotenonic acid, 12.5; beta-dihydrorotenone, 78; etc. The resin from derris root containing deguelin, tephrosin and toxicarol has the value 67. It must be remembered that fish are more sensitive to these compounds than are insects. Danneel, R. "Die Giftwirkung des Rotenons und seiner Derivate auf Fische. I. Mitteilung." Archiv. für Experimentelle Pathologie und Pharmakologie, 170 (1): 59-71 (1933)).

DeGolia reports that the present acreage in derris in the Straits Settlements and Federated Malay States is about 6,000 acres. Heavier plantings are said to have occurred in 1932 and so far in 1933. The yield per acre is estimated by different authorities as about 1,000 pounds of dried root. (DeGolia, D. J. "Derris Cultivation and Trade of Malaya Expanding." U. S. Dept. Com., Bur. Foreign and Dom. Com., World Trade Notes on Chemicals and Allied Products, 7 (22): 10 (1933)). In another report, DeGolia states that: "Roughly, there are three grades of Malayan Derris, which are selling at the present market at Straits $28, S$24 and S$18 per pikul, respectively, delivered to the godown in Singapore by grower or middleman. On the same standards, there are two grades of Sarawak Derris, the S$16. and the S$14. per pikul (133 1/3 lbs.)." (DeGolia, D. "Botanical Insecticides: British Malaya and Sarawak." Special Rpt. No. 50 from Asst. Trade Commissioner, U. S. Dept. Commerce, Singapore, S. S. (March 31, 1933)).

Gourley reports that Sumatra derris root is at the present time of no commercial importance as an export product. It has been found unprofitable to try to compete with roots found in the Malay Peninsula. (Gourley, L. H. "Botanical Insecticides. Sumatra Derris Root." Report No. 136 from the American Consul, Medan, Sumatra, dated Aug. 16, 1933). Grist states that derris is grown on both large and small plantations, generally as a catch-crop with some other form of permanent cultivation. Chinese market gardeners grow it in small quantities for their own use. (Grist, D. H. "Economics and Publications Branch. Annual Report for the year 1931." Technical Reports for the Year 1931. Dept. of Agr., Straits Settlements and Federated Malay States. Kuala Lumpur, 1933, 87 p. (p. 59-76)).

Seltzer, American Consul in Para, reports that the demand for timbo root seems to be so great that several firms and individuals have recently started a campaign to interest farmers in the cultivation of the species of timbo that would give the largest percentage of rotenone. (Seltzer, G. E. "Plants Used as Fish Poisons for Department of Agriculture." Letter from the American Consul, Para, Brazil, to the Secretary of State of the United States, dated Sept. 5, 1933).

Takei, Miyajima and Ono have analyzed a number of samples of derris root for rotenone and deguelin, which they state are the only toxic constituents. In all samples tested there was more deguelin than rotenone. (Takei, S., Miyajima, S. and Ono, M. "Uber Rotenone, den wirksamen bestandteil der Derriswurzel. XV. Quantitative Bestimmung des Rotenons und des Deguelins in Rotenonharz." Abstract in Abstracts from The Bulletin of the Institute of Physical and Chemical Research, Tokyo, 12 (5): (1933) 2 pp.) Georgi and Teik have made a careful study of chemical methods for the valuation of derris. Rotenone determined with either chloroform or carbon tetrachloride as a solvent was slightly higher than when ether was used as the solvent. The authors urge the adoption of a standard method by which derris root may be judged. Of the derris root exported in 1932 from Malaya, approximately 40 per cent was shipped to the United Kingdom, 24 per cent to the United States, and 20 per cent to Japan. (Georgi, C.D.V., and Teik, G. L. "The Valuation of Tuba Root." Dept. Agriculture, Straits Settlements and Federated Malay States, Scientific Series No. 12, 30 pp. (1933)).

III—Synthetics

British Patent No. 377,530 has been issued to the I. G. covering the use of phenolic acids in which both the OH and COOH groups are either esterified or etherified. Such compounds are, for example, phenyl 2-methoxy-1-benzoate, butyl or methyl 2-phenoxy-1-benzoate, propyl 2-acetyloxy-1-benzoate, benzyl or amyl 3, 5-dimethoxy benzoate, etc. These are or may be kerosene soluble.

Although it does not fall within the scope of this Association's major interest, it is worth mentioning that Hutson has reported (J. Econ. Entomol., 26, 291) that propylene dichloride is as effective an insecticidal fumigant as CS_2 but is without fire hazard. This discovery will be of especial importance in connection with grain fumigation. In this connection, we should also mention a patent by Tischler (U. S. 1,920,026) covering the use of tertiary butyl alcohol for the same purpose.

The Chemische Fabrik vormals Sandoz has been granted British Patent No. 375,885 in which claims are made for certain derivatives of thiphenols as insecticides. From their claims, it appears that these compounds may be of interest in connection with the problem of mothproofing fabrics.

The condensation products of acids, alcohols, phenols or amines with ethylene oxide have been patented by the I. G. (French Patent No. 746,258) as insecticides. The patent claims that the presence of 4 or more C_2H_4 groups are required in the resulting polyglycoliether. This patent is very similar to the U. S. Patent No. 1,928,257 issued to Leemann and Kartoschoff and assigned to the Sandoz Company.

Finally, as Chairman of this subcommittee, I should like to express my appreciation of the good cooperation given by the other members of the Committee.

——o——

Disinfectant Scientific Committee

By Dr. Emil Klarmann

As in previous reports, particular attention will be devoted in this survey to those publications which in the opinion of the reviewer contain information of fundamental or systematic significance. Such publications admittedly represent only a part of the total literature which could be classified under the above heading in a broader sense. However, it is held that a report which concerns itself primarily with the advances made in the field under consideration it is permissible to proceed in a selective manner, if such procedure permits of a clearer discussion of the work published, and of a better illustration of the trends of research.

Germicidal Action of Acids

Lœckemann and Ulrich found sometime ago that thiocyanic acid is an exceptionally potent germicide, when compared with some of the "strong" acids such as hydrochloric or sulfuric acid (1). A patent was applied for, covering (2) the disinfection of hides by means of thiocyanic acid or of salts liberating this acid. Thiocyanic acid and trichloro-acetic acid are sixteen times more effective against *B. coli* than hydrochloric acid. However, with respect to anthrax spres trichloro-acetic acid is weaker than hydrochloric acid whereas thiocyanic acid is eight times more potent. In this connection attention is called to another very interesting paper by Lockemann and Ulrich (3) dealing with the effect of alcohol upon the germicidal action of acids and conversely, with the effect of acids upon the germicidal action of alcohol. It is found that ethyl alcohol and certain inorganic and organic acids mutually enhance their bactericidal and sporicidal action to a considerable extent. More particularly, alcohol and acid concentrations which alone are not capable of killing bacteria, even after prolonged contact, acquire this capacity in mixtures.

The discussion of the antiseptic action of acids as a function of the non-ionized portion, and its relation to the surface tension, is the subject of a paper by Bach (4).

Salts of synthetic acids, produced by the oxidation of petroleum hydrocarbons show powerful fungicidal properties according to a paper by Cornelia Burwell (5). Absence of irritating action, good penetration and exfoliating properties impart to these products a potential usefulness in the treatment of certain skin diseases.

Alepol is a mixture of salts of hydnocarpic acid, obtained from the low boiling fraction of chaulmoogra. Its successful use by Rogers in the treatment of leprosy suggested to Cummins and Weatherall the study of its effect on the germs of tuberculosis (6). It was found that Alepol inhibited the growth of a human TB strain in a dilution of 1:1,000,000.

Metals and Metal Compounds

According to Buehrmann (7) the motility of various micro-

Good Disinfectants

CONTAIN

YARMOR PINE OIL

Disinfectants properly made with Yarmor Steam-distilled Pine Oil have these properties:

1. Clear, sparkling amber color.
2. Milky white emulsion in water.
3. Do not burn body tissues.
4. Non-toxic to human beings.
5. Do not stain when in diluted form.
6. Kill disease-producing bacteria.
7. Free from suspended matter which denotes uniformity.
8. Leave a sweet, clean, piney odor wherever applied.

Steam-distilled Pine Oil
Steam-distilled Wood Turpentine
Wood Rosin
Alpha Terpineol
Commercial Abietic Acid
Abalyn
Nitrocellulose
Chemical Cotton

As we do not manufacture disinfectants ask your supplier about disinfectants containing Yarmor.

HERCULES NAVAL STORES

HERCULES POWDER COMPANY
INCORPORATED

961 Market Street, Wilmington, Delaware

BRANCH OFFICES: • CHICAGO • NEW YORK • ST. LOUIS • SALT LAKE CITY • SAN FRANCISCO

QQ-41

organisms can be abolished by oligodynamic water, the loss of motility depending directly upon the concentration of the metal. Directions are given in the same paper for the reactivation of inactivated silver.

A discussion of the relation between the pharmacological effect and the chemical state of metals has been contributed by Neergaardt (8).

The germicidal and the inhibitory action of silver nitrate in different media and in solutions of electrolytes is the subject of a paper by Glueck (9). According to Dujarric and Zanca (10) silver fluoride is twice as effective against B. coli and three times as effective against Staphylococci as silver cyanide, owing to a greater electrolytic dissociation of the former. The decomposition of silver fluoride by light can be retarded by the addition of an eosin solution 1:10,000.

Halogens

All three halogens, chloride, bromine and iodine show marked germicidal efficacy, but bromine appears to be the most effective, according to a paper by Beckwith and Moser (11).

The relation between the bactericidal velocity and the oxidation potential of chlorine compounds, such as hypochlorous acid, chlorimine, monochloroglycine and azochloramide has been studied by Schmelkes (12). It was found that the lowering of the oxidation potential brought about by combination of chlorine with amino-compounds with the view to reducing the tendency to oxidize organic matter, slows down the velocity of bactericidal action.

A critical study of the methods of evaluating the germicidal potency of hypochlorites by chemical means has been published by Myers and Johnson (13).

Phenol Derivatives

In this field considerable activity is to be reported. In a previous report the opinion was expressed that the disinfectants of the future will be compounded from materials obtained in this field of organic synthesis. This opinion appears to be borne out by the increasing amount of literature on new phenol derivatives, their chemical and bactericidal properties. As to the relationship between the chemical constitution and germicidal action, more clarity seems to have been gained in this than in any other group of substances with antibacterial properties.

A patent has been granted to Read (14) covering the preparation of butyl phenols with a phenol coefficient of 37 to 40. The preparation of diisobutyl phenols and polyphenols has been described by Niederl, Natelson and Beekman (15). These compounds are obtained by condensation with dissobutylene of phenol, o-cresol, guaiacol, catechol, resorcinol, hydroquinons and pyrogallol, and some of them are said to show considerable germicidal potency. A patent on dialkyl resorcinol derivatives was granted to Christiansen and Harris (16). These compounds are also of a potential interest as constituents of antiseptics and disinfectants.

The bactericidal efficacy of creosote and of its components is the subject of a paper by Gershenfeld, Pressman and Wood (17). It is found that the differences in the germicidal action of different samples of Creosote U.S.P. are to be attributed to variations in the proportion of the constituents; their phenol coefficients with respect to B. typhosus and Staphylococcus aureus have been determined.

Condensation of aliphatic aldehydes with phenols leads to the formation of polyhydroxydiphenylmethanes and -alkyl methanes. Several such compounds were studied by Macht and Harden (18) from a bacteriological and pharmacological point of view.

Robinson, Suthers and Walker (19) prepared a series of alkyl derivatives of hydroxy-indan-1, 3-dione proceeding upon the thesis of a physiological action of 1, 3-diketones. Several test-organisms were used. The acid-fast Mycobacterium phlei was found to be extremely susceptible to some of the compounds of this series, its growth being inhibited in some cases in dilutions as low as 1:10,000,000. However, the compounds of this class are little effective or ineffective against Gram-negative organisms.

Several contributions were made to the chapter of halogen phenol derivatives. Rapps carried out a re-investigation of the germicidal properties of para-chloro-m tacresol and of p-chloro-symm. metaxylenol, with and without soap (20). Lockemann and Kunzmann studied the effect upon the germicidal potency of the introduction of chlorine, bromine and iodine into the nucleus of several isomeric xylenols (21). Two German patents (22) describe the preparation of solutions and emulsions of chlorothymol with the aid of soaps plus substances capable of lowering the melting point of chlorothymol.

The preparation of iodo-carvacrol is the subject of a German patent (23). The results of a practical comparison of Carvasept (chlorocarvacrol) with hexylresorcinol, involving hand and oral disinfection were reported by Rath (24).

Continuing their investigations on the relation between the chemical constitution and antibacterial action of phenol derivatives Klarmann, Shternov, Gates and Cox prepared and studied the homologous series of chloro- and bromophenols (25). In these series a number of compounds were obtained which appear to manifest the highest bactericidal and fungicidal potency reported to date for any metal free antiseptics. It was found also that certain related microorganisms like those of the typhoid-colon group, or the acid-fast bacteria and others evidenced not only a qualitative but also a quantitative similarity in their susceptibilities to the action of the halogen phenol series. But even more important is the finding that the susceptibility to the action of the higher halogen phenol homologs separates the microorganisms in two groups, the dividing line following to some extent that drawn by the Gram reaction. This phenomenon, for which the designation "quasi-specific effect" has been suggested, is illustrated, e.g., by the fact that 2-n-heptyl-4-chlorophenol kills Staphylococcus aureus in a dilution of 1:120,000 (phenol coefficient 1500), or a resistant hemolytic strain of Streptococcus in a dilution of 1:200,000 (phenol coefficient 2200) while showing very little germicidal effect upon B. typhosus or B. paradysenteriae. On the other hand, the lower homologs are generally more effective against microorganisms of the typhoid-colon group than against the pyogenic cocci, acid-fast bacteria or pathogenic fungi.

The preparation of bacteriological investigation of hydroxyphenyl alkyl sulfides was described by Miller and Read (26). Several compounds of this series show considerable germicidal potency.

Essential Oils

The fungicidal action of several types of pine oil is the subject of a paper by Smyth and Smyth, Jr. (27); several pathogenic fungi were used in the tests. Gatefosse (28) determined the germicidal action of pine oil upon a number of pathogenic bacteria and cocci expressing his findings in terms of phenol coefficients. He also carried out an investigation of the antibacterial properties of lavender oil and made certain recommendations for its use in surgery and in hygiene.

Spinelli (29) advocates the use of bergamot oil as a surgical antiseptic and disinfectant.

Antiseptic Dyes

Rossiiskii (30) asserts that a one per cent solution of Brilliant Green in forty per cent alcohol is a satisfactory substitute for tincture of iodine in many instances.

The studies on the antiseptic and trypanocidal properties of anil and styryl derivatives of aminoquinoline and related compounds were continued by Brownin, Cohen, Gulbransen and their co-workers (31).

The results of a recent investigation by Simmons appear to indicate the superiority of iodine over mercurochrome (32). Another paper dealing with the comparison of mercurochrome and iodine as skin disinfectants was published by Smith (33).

Physical Effects

The bactericidal action of ultra-violet irradiations upon tubercle bacilli was studied by Mayer and Dworski (34).

The synergistic effect of x-rays and inorganic salts was investigated by Claus (35). According to Lentze (36) high-frequency (ultra-short wave) radiation is harmless to bacteria and protozoa. The influence upon bacteria of high frequency currents is the subject of a study by Fabian and Graham (37).

Literature References

(1) G. Lockemann and W. Ulrich, Zeitschr. Hyg. 111, 387 (1930).
(2) Kali Chemie A. G., Ger. Pat. Appl. 30i, 3K 116, 557 filed 9-10-29.
(3) G. Lockemann and W. Ulrich, Zeitschr. f. Hyg. 114, 584 (1932).
(4) D. Bach, Bull. sc. pharmacol. 39, 499 (1932).
(5) C. Burwell, A. C. S. Meeting, Med. Div., Washington, 1933.
(6) S. L. Cummins and C. Weatherall, Brit. Med. J. 1933 I, 3758, 47.

DEO-BASE

Reg. U. S. Pat. Off.

Fly Sprays for 1934—

should be free from the objectionable odor of kerosene. This fact was forcibly impressed upon all those in attendance at the recent insecticide convention in New York. The time is close at hand when *all* liquid insecticides will have to be free from that tell-tale residual odor of kerosene. It is one of the greatest sales obstacles today. Eliminate it in your product by using DEO-BASE.

—•—

DEO-BASE is a petroleum oil refined to complete freedom from kerosene odor. It is the best product available for use in insecticide liquids applied by sprayers or vaporizing machines.

—•—

Liquid insecticides made with DEO-BASE find ready acceptance by housewives, the best hotels, dairies, bakeries, clubs, food markets . . . in fact, wherever the kerosene odor of ordinary sprays is found objectionable.

—•—

DEO-BASE is well adapted for use with *odorless* Pyrethrum Extract now obtainable from leading manufacturers.

—•—

DEO-BASE conforms in every detail with the specifications of the National Association of Insecticide & Disinfectant Manufacturers.

L. SONNEBORN SONS, Inc.

Refiners of White Oils and Petrolatums

New York Office
88 Lexington Avenue

Refineries { Petrolia, Pa. / Franklin, Pa.

Chicago Office
820 Tower Court

(7) T. Buehrmann, Zeitschr. f. Hyg. 115, 241 (1933).
(8) K. v. Neergaard, Klin. Wochenschr. 11, 2039 (1932).
(9) G. Glueck, Arch. f. Hyg. 110, 38 (1933).
(10) R. Dujarric de la Riviere and P. Zanca, Rev. Hyg. Med. prev. 54, 796 (1932).
(11) J. D. Beckwith and J. R. Moser, J. Am. Water Works Assn. 25, 367 (1933).
(12) F. C. Schmelkes, Am. J. Public Health 23, 269 (1933).
(13) P. R. Myers and A. H. Johnson, Proc. Intern. Assn. of Milk Dealers, Ltb. Sect. 25, 21 (1932).
(14) R. R. Read, U. S. Pat. 1,887,662 (1932).
(15) J. B. Niederl, S. Natelson and E. McK. Beekman, J. Am. Chem. Soc. 55, 2571 (1933).
(16) W. G. Christiansen and S. E. Harris, U. S. Pat. 1,897,188 (1933).
(17) L. Gershenfeld, R. Pressman and R. C. Wood, J. Am. Pharm. Assn. 22, 198 (1933).
(18) D. T. Macht and W. C. Harden, J. Pharmacol. Exptl. Ther. 47, 377 (1933).
(19) F. A. Robinson, A. J. Suthers and J. K. Walker, Biochem. J. 26, 1890 (1933).
(20) N. F. Rapps, J. Soc. Chem. Ind. 52, 175 (1933).
(21) G. Lockemann and Th. Kunzmann, Angew. Chemie 46, 296 (1933).
(22) D. F. Raschig, G.m.b.H., Ger. Pat. 579,897 and 580,880 (1933).
(23) Chem. Fabrik v. Heyden, A. G., Ger. Pat. 582,968 (1933).
(24) J. Rath, Deutsche Monatschr. f. Zahnheilk. 50, 1059 (1932).
(25) E. Klarmann, V. A. Shternov, L. W. Gates and P. H. Cox, Jr., J. Am. Chem. Soc. 55, 2576, 4657 (1933).
E. Klarmann, Am. Chem. Soc. Meeting, Med. Section, Washington (1933).
E. Klarmann and L. W. Gates, U. S. Pat. 1,926,873; 1,926,874, 1,938,911 and 1,938,912 (1933).
(26) E. Miller and R. R. Read, J. Am. Chem. Soc. 55, 1224 (1933).
(27) H. F. Smyth and H. F. Smyth, Jr., Arch. Dermatol. Syphil. 26, 1079 (1932).
(28) R. M. Gatefosse, Parf. moderne 26, 599, 533 (1932).
(29) A. Spinelli, Policlinico, 1932, 627.
(30) D. M. Rossiiskii, Chem. Abstr. 27, 5473 (1933).
(31) J. N. Ashley, C. H. Browning, J. B. Cohen, R. Gulbransen and others, Proc. Roy. Soc. (London), B 113, 293, 300 (1933).
(32) J. S. Simmons, Surgery, Gynecol., Obstet., 56, 55 (1933).
(33) J. W. Smith, J. Urol. 28, 483 (1932).
(34) E. Mayer and M. Dwarski, Amer. Rev. Tuberc. 26, 105 (1932).
(35) W. D. Claus, J. Exptl. Med. 57, 335 (1933).
(36) F. A. Lentze, Zentralbl. Bakteriol. I Orig. 126,508 (1932).
(37) F. W. Fabian and H. T. Graham, J. Bacteriol. 25, 34 (1933).

—o—

Committee on Standardization of Disinfectants

By Dr. William Dreyfus

THE report we present to you at this Annual Meeting constitutes a series of investigations on five samples of four different groups of Disinfectants, planned in the early Spring and already referred to in a preliminary way in our report presented at the Mid-Summer Meeting in Chicago. It was participated in by the Pease Laboratories of New York under the direction of Mr. Philip P. Gray and the Laboratories of Skinner & Sherman Inc. of Boston under the direction of Mr. Burton G. Philbrick, a member of my Committee.

The object in undertaking this very arduous work, now carried to a final issue, was to measure the power of different testing laboratories to check their results by the three most common bacteriological methods: The F. D. A.—the Hygienic Laboratory —and the American Rideal-Walker Methods, working with identically the same key samples of each group of disinfectants against B. Typhosus and with the exception of sample E—representing a Pine Oil Disinfectant, each group was also tested against Staphylococcus Aureus by the F. D. A. Method at 20° C.

The results obtained in these collaborative tests for the Association are tabulated in a separate chart and I will only touch on a few highlights which this work has elucidated, as a detailed discussion might prove too technical and I would have to burden you with numerous correspondence exchanged on the subject.

The four groups of Disinfectants listed in the accompanying chart are represented by:

Sample A—Technical Cresol Compound
Sample B—Medium High Coal Tar Disinfectant
Sample C—High Testing Coal Tar Disinfectant
Sample D—Same type
Sample E—Pine Oil Disinfectant

TESTS SUBMITTED FROM THE LABORATORY OF SKINNER & SHERMAN, INC., BY BURTON G. PHILBRICK

B. Typhosus Phenol Coefficient By

Sample	F. D. A.		R. W.		H. L.	
A	4.7		4.2		4.1	
	4.7	4.8	4.2	4.1	4.0	4.1
	5.0		4.0		4.2	
	10.0		9.5		9.4	
B	9.4	9.3	9.5	9.7	8.5	9.0
	8.3		10.0		9.0	
	16.7		20.0		16.0	
C	17.5	17.2	21.0	20.3	16.2	16.1
	17.5		20.0		16.2	
			22.2		15.3	
D	15.6		22.2		16.1	
	15.6	15.6	21.1	21.7	16.1	15.8
			21.1			

Staph. Aureus Coefficient by F. D. A. Method at 20 degrees C

Sample		
A	2.6	
	2.5	2.7
	2.8	
	2.8	
B	2.0	
	2.0	2.1
	2.0	
	2.2	
C	5.8	
	5.8	
	4.6	5.1
	4.6	
	5.0	
	5.0	
D	6.7	
	6.3	6.5
	6.4	
	6.4	

B. Typhosus Phenol Coefficient By

Sample	F. D. A.		R. W.		H. L.	
E	3.1		3.3	3.4	3.8	3.8
	2.5	2.7	3.4		3.8	
	2.5					

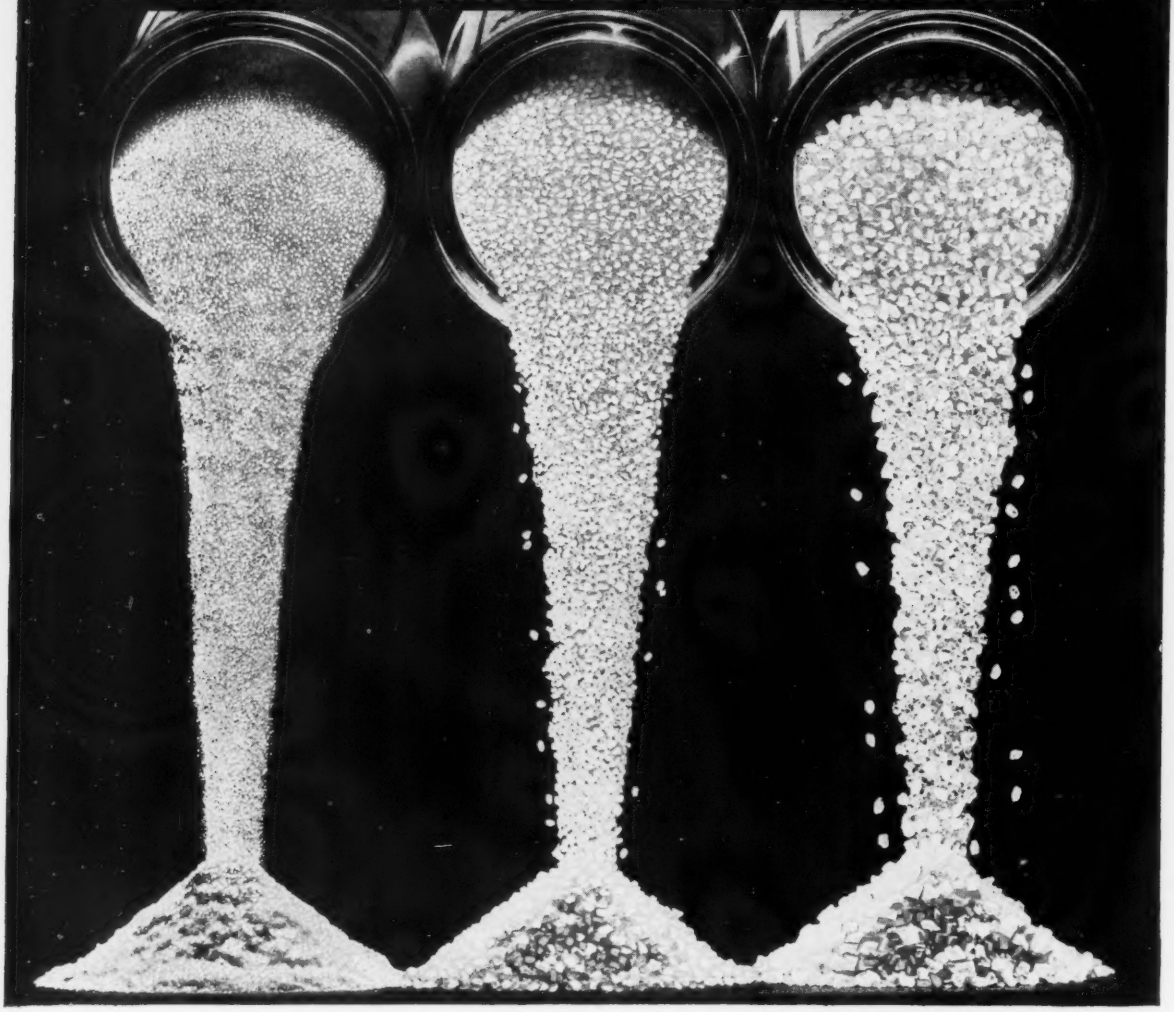
TESTS SUBMITTED FROM THE PEASE LABORATORIES, INC. BY PHILIP P. GRAY

B. Typhosus—Phenol Coefficient By

Sample	F. D. A.	R. W. (5cc)	Hy Lab.	S. Aureus 20°C
A	4.5	5.3	4.0	2.9
	4.5	5.0	3.9	2.3
	4.7	5.2	4.1	2.3
	4.7	5.0	4.2	2.5
	5.0			
Average	4.7	5.1	4.1	2.5
B	7.8	10.0	8.2	2.5
	8.7	9.5	8.2	2.3
	8.7	10.0	8.2	
		10.0	8.5	
			7.8	
			8.2	
			7.8	
Average	8.4	9.9	8.2	2.4
C	17.3	18.5	16.8	6.1
	14.7	18.1	16.8	5.0
	17.5	18.0	16.7	6.3
	16.3	18.2	17.2	5.8
	17.5		17.3	5.0
	16.3		16.6	6.1
	16.9		16.0	6.5
	15.7		16.4	5.9
	14.3			5.4
	16.2			
Average	16.3	18.2	16.7	5.8
D	15.1	17.0	15.2	6.6
	15.7	17.1	16.1	5.9
	16.2	17.0	15.4	5.0
		16.5	15.1	
			15.3	
			16.3	
Average	15.7	16.9	15.5	5.8
E	4.4	3.3	3.7	
	4.4	3.5	3.8	
	4.1	3.4	3.6	
	3.6	3.3	3.6	
	3.6	3.3	3.8	
	3.8	3.5	3.9	
Average	4.3	3.4	3.7	

PARADOW

PURE PARADICHLORBENZENE



VARIED SIZES . . . FOR VARIOUS USES

Fine, medium and coarse crystals of Paradow are available to meet the requirements of your particular product. Each form of crystal is designed to meet special trade needs, whether sold as a moth killer, a deodorant or for other purposes.

When repackaged in its original crystalline forms, this Dow product presents a superior appearance. Stocks are available at commercial centers, packed in 200—100—50 and 25 pound drums and in cases of 10—5 and 1 pound cans. Write for typical samples.

Let us quote on your requirements

TRADE DOW MARK

THE DOW CHEMICAL COMPANY MIDLAND . . . MICHIGAN

It is very gratifying to your Committee that on the whole the results agree remarkably well by using the three methods on all the five samples, particularly in the case of the F. D. A. and the HyLab Methods, with the exception of one sample—Pine Oil Disinfectant—where the F. D. A. shows quite a difference between the two laboratories, whereas the results by the HyLab and R. W. Methods are practically identical.

The results on all the four samples of Coal Tar Disinfectants which were tested by the two laboratories against Staphylococcus Aureus by the F. D. A. Method at 20° C. show absolutely uniform results. It is interesting to note, as three of these samples represent coal tar disinfectants forming emulsions in water, one of a B. Typhosus coefficient of about 8 and the other two of a B. Typhosus coefficient of about 16, that all three show a proportionate reduction of coefficiency against Staphylococcus Aureus amounting to a loss of almost two thirds of the original B. Typhosus coefficient. The fourth sample, representing the technical cresol compound type, forming a clear solution in water, loses less than one half of its original B. Typhosus coefficient when tested against Staphylococcus Aureus by the F. D. A. Method at 20° C.

It is of interest that the results obtained by our two investigating Laboratories on Sample D show identical coefficients by the F. D. A. Method against B. Typhosus and practical uniformity by the same Method against Staphylococcus Aureus at 20° C, whereas this same Sample D tested by a Government Laboratory showed considerably lower results.

A significant explanation for part of such differences in results by various laboratories according to Mr. Gray's opinion lies in the possibility that on some Disinfectants either Coal Tar or Pine Oil products, under certain conditions a lower coefficient is obtained with a weak culture (toward phenol) contrary to the usually accepted idea that a weak culture (toward phenol) invariably involves a higher coefficient for the Disinfectant.

One other important point which seems to be brought out in these tests according to Mr. Philbrick's comments and to which we all agree, is the false sense of accuracy which may be implied by the present system of reporting results to the nearest decimal (0.1) coefficient. If some system were adopted reporting to 0.1 for coefficients below 5, to the nearest half (0.5) for coefficients between 5 and 15, and to the nearest unit (1.0) for coefficients between 15 and 20, then the results would prove closer to the actual accuracy of the method.

In conclusion I feel sure this report gives you a picture of the enormous amount of painstaking work undertaken by the investigators Messrs. Gray and Philbrick, extending over a period of about six months, necessitating several hundred individual tests and involving considerable expense and therefore our Association owes these Gentlemen a very deep gratitude and our sincere appreciation for their most constructive scientific contributions.

——o——

Chicago brush manufacturers have formed a local organization called The Chicago Brush Manufacturers Association. Officers include: Fred J. Gutman, Western Brush Co., president; P. Gornell, B. Gornell & Son, vice-president: R. Ingerwersen, Universal Brush Co., secretary, and A. Riegelhaupt, Illinois Brush Mfg. Co., Treasurer.

——o——

I. H. Luttan, formerly located in Waterloo, Iowa, has recently bought the York Chemical Company at 424 West 18th Street, New York. Mr. Luttan is a graduate from the University of Missouri where he specialized in entomology. His work in the middle west concerned itself with the practical and scientific in the field of insecticides, representing such concerns as Swift and Company and Devoe and Raynolds and others. With his present set-up, he is in a position to manufacture a complete line of agricultural, industrial and household insecticides.

Elect Code Authority Committee

A code authority committee for the insecticide and disinfectant industries, whose work will be to supervise and enforce the NRA code after it is accepted, has been elected in part by the membership of the National Association of Insecticide & Disinfectant Manufacturers. The Association elected seven representatives out of 21 nominated. Two additional men remain to be elected by the industry at large, that is by firms which are not members of the Association, making a committee with a total membership of nine persons. Those elected by the Association membership, are as follows:

Dr. Robert C. White, Robert C. White Co., Philadelphia.
H. M. Clark, Dr. Hess & Clark, Inc., Ashland, O.
William Griesemer, Black Flag Co., Baltimore.
W. B. Eddy, Rochester Germicide Co., Rochester, N. Y.
J. L. Brenn, Huntington Labs., Inc., Huntington, Ind.
W. J. Andree, Sinclair Refining Co., New York.
W. J. Zick, Stanco, Inc., New York.

——o——

Direct Sellers Meet on Code

Manufacturers and jobbers of disinfectants and insecticides selling *direct* to consumers, who have formed a separate group to formulate trade practices under the general insecticide and disinfectant code, held a meeting on Jan. 5 at the offices of the West Disinfecting Co., Long Island City, N. Y. The meeting was under the auspices of a committee of the National Association of Insecticide & Disinfectant Manufacturers, headed by M. M. Marcuse, president of West Disinfecting Co. Other members of the committee are C. C. Baird, president of Baird & McGuire, Inc., Holbrook, Mass. and general advisers to the NRA on the industry; W. B. Eddy of Rochester Germicide Co., Rochester, N. Y.; S. S. Selig of The Selig Co., Atlanta, Ga.; J. A. Walsh of C. B. Dolge Co., Westport, Conn. The other group operating under the general insecticide and disinfectant code is composed of manufacturers who sell to jobbers and dealers for resale.

——o——

Garnet Chemical Corp., Allentown, Pa., has announced a new sanitary device, a concealed automatic disinfector for flush tanks. The company advises that any disinfectant soluble in water may be used in this new appliance. Garnet Chemical Corp. recently succeeded to the business of the George H. Garnet Co. and the Allentown Products Co. and offers a line of liquid soap dispensers in addition to the equipment described above.

——o——

Fuld Bros., Baltimore, manufacturers of soaps and sanitary products for the jobbing trade, have developed a new porcelain urinal strainer being sold under the name *Drop-Blox*. A Vitozone *Drop-Blox* especially designed for use in the new device is also being offered.

Increase YOUR 1934 *Fly Spray Sales*

● THRU THE SELECTION OF SUITABLE PERFUMES TO EFFECTIVELY COVER THE ODOR OF MINERAL SPIRITS ●

FELTON CHEMICAL CO., INC.

Have Made a Scientific Study of This Problem, and Offer a Selection of FLY SPRAY PERFUMES and NEUTRALIZERS Which Accomplish Maximum Coverage at Minimum Cost.

VITAFLOR No. 758—An Extremely Powerful Neutralizer
(TRADE MARKED)

KEREX LORIENT
KEREX BOUQUET
KEREX CHERIE

Neutralize and Perfume in One Operation.

DULCENE
METSAL
NEWMON
AIRDOUX

Effective Coverage — Pleasing Odors.
Priced as Low as 75 Cents Per Pound.

It will be to your advantage to investigate the above items. Write us for samples and quotations.

FELTON CHEMICAL COMPANY, INC.

Executive Offices and Factory—599 JOHNSON AVE., BROOKLYN, N. Y.
Chicago, Ill., Offices—1200 NORTH ASHLAND AVE.

Stock Carried in the Following Cities:

LOS ANGELES, CAL.
WM. PAUER
1131 N. Orange Grove Ave.

●

SAN FRANCISCO, CAL.
A. H. DOREMUS
1282 Folsom St.

●

CHICAGO, ILL.
1200 No. Ashland Ave.

●

NEW ORLEANS, LA.
ROBERT E. FELTON
Balter Bldg., Rm. 407

Factors in Insecticide Performance

By D. F. MURPHY and C. H. PEET*
Rohm & Haas Co., Inc., Phila., Pa.

THE problem of how, and why, insecticides work has been the subject of quite a number of sporadic investigations since the pioneer work of Shafer in 1911. (Michigan Agr. Exper. Sta., Technical Bulletin 11 (1911)). Other investigators prior to Shafer had given consideration to the mechanics of insecticidal action, but Shafer seems to have been the first to apply the refined methods of dissection to this problem. He found that there was a difference in the extent to which oils of varying viscosity penetrated into the spiracles of insects on which these oils were sprayed and he attributed this difference in penetration to the well-known phenomenon of capillarity.

Later Moore[1] published a series of papers on the insecticidal action of a wide variety of organic compounds, including kerosene. In his work he came to the conclusion that insecticidal effectiveness was related to boiling point, those compounds of high boiling point and low volatile being more effective when applied directly to the insect, or its eggs, than compounds of low boiling point and high volatility.

These two workers approached the problem from fundamentally different angles and arrived at conclusions which, though not contradictory, are not definitely related in any way to each other.

In 1923 a paper by Richardson and Smith[2] took exception to the conclusions of Moore and his coworkers, for Richardson found that there were so many exceptions to the rule laid down by Moore that he concluded it was impossible to use volatility, or boiling point, as a safe index of toxicity, when compounds were being used as contact insecticides.

Ginsberg[3] in 1929, using mosquito larvae in his studies, obtained results which agreed with those of Moore, that is, he states specifically that—"The toxicity of petroleum distillates is directly proportional to the rate of volatility, and inversely proportional to the boiling point." In his studies he resorted to microscopic observation of the extent of penetration of oil into the respiratory siphons of the mosquito larvae.

In connection with the work which we are about to report, we feel it is necessary to point out that this work of Ginsberg's involved the action of petroleum fractions alone, without the addition of any toxic agent, which may account for the difference between the results which we have observed, and those reported by Ginsberg.

Finally, there has been some very excellent work recently by Wilcoxon and Hartzell[4] on the mechanics of insecticidal action, in which they have been able to show by staining and by micro dissection, that insecticides penetrate the tracheae and that the extent of penetration is directly related to the physical properties of the insecticide.

It is our belief that the apparent differences between the theories developed by these various investigators can be reconciled. We feel that it is impossible to explain the method of action of any insecticide on the score of any single factor, rather we believe that the effect of an insecticide is due to the combined operation of many different factors. It has, for example, been established that the action of nicotine is caused by its vapors. It follows, therefore, that volatility is a necessary property of nicotine. It seems equally certain that the pyrethrins act directly upon the nerves and nerve centers.

We shall, therefore, not attempt to go further into the broad phases of this question, but shall confine ourselves to a discussion of one factor which we feel we have established to be of prime importance in connection with the action of household insecticides. This property is that of viscosity. In considering the characteristics and properties of the ideal household insecticide, it seemed to us that two should be possessed by an insecticide, if it were to be effective:

1. It must penetrate to the vital parts of the insect
2. It must be held in contact with the insect long enough to accomplish its end.

We were inclined to believe that the second property was the more important, and we concluded that solutions of an insecticidal principle, in some heavy oil, falling within say the general range of the lubricating oils, would be the most satisfactory insecticidal vehicle, since these heavier oils would keep the toxic agent on the body of the insect for a longer period. This has been found to be true in the case of scale insects. However, when we made some preliminary tests on solutions of Lethane 384 in the heavier base oils, we were surprised to note that these solutions gave poorer kills than we had previously been obtaining with the lighter oils, such as are commonly used. We decided, therefore, to look into this whole question more thoroughly, with a view to establishing some range within which the most satisfactory oils would fall. For these experiments, we selected the following solvents:

* Address before 20th Annual Meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Dec., 1933.

[1] Moore, Jour. of Agr. Research, *9*, pages 371-381 (1917)
[1] Moore, Jour. of Agr. Research, *10*, pages 365-371 (1919)
[1] Moore & Graham, Jour. of Agr. Research, *12*, Page 579 (1918)
[1] Moore & Graham, Jour. of Econ. Entomol. *11*, pages 70-75 (1918)

[2] U. S. Dept. of Agriculture, Department Bulletin 1160, (1923)

[3] Proceedings 16th Annual Meeting New Jersey Mosquito Extermination Association (1929)

[4] Boyce Thompson Inst. *3*, pages 1 to 12 (1931)
[4] Boyce Thompson Inst. *4*, pages 107-117 (1932)
[4] Boyce Thompson Inst. *5*, pages 115-127 (1933)

NRA
WE DO OUR PART

KOPPERS

TAR ACIDS
CRESOL U.S.P
CRESYLIC ACID
98% to 100% • STRAW COLOR
TAR ACID OILS
PHENOLS
NEUTRAL
HYDROCARBON OIL

KOPPERS
PRODUCTS
COMPANY
1249 KOPPERS BUILDING
PITTSBURGH, PA.

LOWELL ELECTRIC
INSECTICIDE SPRAYER
Completely Exterminates
Roaches, Moths, Ants
and Other Insect Pests!

No. 300 ELECTRIC SPRAYER

A proven outstanding development in electric sprayer design. It will handle any liquid insecticide, disinfectant or exterminating liquid. It will serve the exterminator and the manufacturer of insecticide as no other electrically operated outfit.

Equipped with combination angle and parallel spray head. Time switch adjustable from one to thirty minutes. Can be set for desired period of time. Shuts off automatically. The LOWELL ELECTRIC SPRAYER gives a very fine, penetrating DRY spray. 1/10th Horsepower Universal Motor for either A. C. or D. C. current.

WRITE FOR FULL PARTICULARS

LOWELL
MANUFACTURING COMPANY
LOWELL MICHIGAN

Paint and varnish makers' naphtha.
Kerosene.
Light lubricating oil.
Varying mixtures of this light lubricating oil with kerosene.
A heavy stock spray base.

Although the boiling ranges of this series of oils covered quite a range, it seemed to us that the most significant difference between one oil and another was its viscosity and we accordingly measured these viscosities, referring all values found to that of water. This does not give viscosity in terms of Saybolt degrees, of course, but knowing the relative viscosity, the Saybolt, or other viscosity, can be calculated. Our results were as follows:

Material	Seconds	Relative Viscosity
Water	29.0	1
Paint and varnish makers' naphtha	28.5	.9828
Kerosene	31.0	1.07
Kerosene plus 10% light lubricating oil	31.4	1.08
" 20% " "	32.0	1.10
" 30% " "	32.5	1.12
" 40% " "	34.0	1.17
" 50% " "	35.5	1.22
" 75% " "	43.0	1.48
Light lubricating oil	73.0	2.51
Stock spray base	76.0	2.62

All of these viscosities were determined at 25.5° C. (78° F.)

In order that the picture might be complete, the tests which we ran were run in duplicate on a 4 per cent solution of Lethane 384 and a pyrethrum extract in the proportion of 1 lb. per gallon, in each of the oils listed. A complete summary of these tests follows:

LETHANE 384—4% in Paint and Varnish Makers' Naphtha

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817A	3	42%	85°F.	0	0	100	96
2	"	3	43%	"	0	0	"	94
3	"	3	42%	"	0	0	"	91
4	"	3	42%	84°F.	0	0	"	96
5	"	3	45%	85°F.	0	0	"	93
6	B819B	4	37%	"	0	3	"	90
7	B820A	5	38%	"	0	2	"	84
8	B820B	4	52%	"	0	2	"	90
9	B821A	3	37%	"	0	3	"	80
10	"	3	23%	"	0	3	"	87
Average							100	90.1
			Standard Deviation				+ 4.9	
			Probable Error				+ 1.0	

LETHANE 384—4% in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	4	37%	85°F.	0	0	100	76
2	B817C	3	39%	84°F.	0	2	100	77
3	"	3	45%	85°F.	0	2	100	80
4	B818A	4	44%	85°F.	0	2	"	79
5	"	4	40%	"	0	2	"	73
6	B819B	4	37%	84°F.	0	3	"	77
7	B794B	3	35%	85°F.	0	0	"	80
8	"	3	49%	"	0	0	"	71
9	B794A	5	47%	84°F.	0	0	"	77
10	B820A	5	51%	85°F.	0	2	"	77
Average							100	76.7
			Standard Deviation				+ 2.7	
			Probable Error				+ 0.6	

LETHANE 384—4% + 10% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B786A	3	39%	85°F.	0	0	100	66
2	B787B	4	36%	"	0	0	99	71
3	"	4	35%	"	0	0	100	77
4	B787C	5	41%	84°F.	0	1	"	53
5	B788D	5	45%	85°F.	0	0	"	51
6	B793B	3	42%	84°F.	0	0	99	71
7	"	3	40%	85°F.	0	0	100	75
8	B794B	4	39%	"	0	0	"	57
9	"	4	41%	"	0	0	"	60
10	B794A	5	47%	"	0	0	99	63
Average							99.7	64.4
			Standard Deviation				+ 8.6	
			Probable Error				+ 1.8	

LETHANE 384—4% + 20% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B794B	3	39%	85°F.	0	0	100	67
2	B805A	3	42%	"	0	2	"	67
3	"	3	45%	"	0	2	"	48
4	B817B	4	37%	"	0	0	99	69
5	"	4	39%	"	0	0	100	64
6	B817C	5	44%	"	0	2	"	55
7	"	5	41%	"	0	2	"	64
8	B818A	3	46%	"	0	2	"	68
9	"	3	41%	"	0	2	"	61
10	B819A	5	45%	"	0	3	"	66
Average							99.9	62.9
			Standard Deviation				+ 6.3	
			Probable Error				+ 1.4	

LETHANE 384 — 4% + 40% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	5	45%	85°F.	0	0	100	55
2	"	5	38%	"	0	0	"	67
3	B817C	5	39%	84°F.	0	2	"	69
4	"	5	39%	85°F.	0	2	"	48
5	B818A	4	41%	"	0	2	"	56
6	B819A	5	37%	"	0	3	"	52
7	B819B	3	50%	"	0	3	99	65
8	B820A	3	46%	"	0	2	100	45
9	B820C	4	43%	"	0	0	"	44
10	B821A	3	39%	"	0	3	"	44
Average							99.9	54.5
			Standard Deviation				+ 9.1	
			Probable Error				+ 2.0	

LETHANE 384 — 4% + 75% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	4	45%	85°F.	0	0	100	62
2	"	5	38%	"	0	0	"	68
3	B817C	5	39%	84°F.	0	2	"	58
4	B818A	4	45%	85°F.	0	2	"	61
5	"	4	35%	"	0	2	"	48
6	B819B	3	50%	"	0	3	99	57
7	"	3	47%	"	0	3	100	56
8	B820A	4	46%	"	0	2	"	56
9	B820C	4	43%	"	0	0	"	50
10	B821A	3	39%	"	0	3	"	35
Average							99.9	55.1
			Standard Deviation				+ 8.6	
			Probable Error				+ 1.8	

LETHANE 384 — 4% in Light Lubricating Oil

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	5	45%	85°F.	0	0	100	53
2	"	5	37%	"	0	0	"	60
3	B817C	5	39%	"	0	2	"	30
4	B818A	4	45%	"	0	2	"	40
5	"	4	35%	"	0	2	"	47
6	B819B	3	60%	"	0	3	"	45
7	B820A	3	44%	84°F.	0	2	"	43
8	B820B	4	47%	85°F.	0	2	99	40
9	B820C	4	43%	"	0	0	100	40
10	B821A	3	39%	"	0	3	"	38
Average							99.9	43.6
			Standard Deviation				+ 7.9	
			Probable Error				+ 1.7	

LETHANE 384 — 4% in a Heavy Stock Spray Base

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B802C	4	41%	85°F.	0	2	99	38
2	B803A	3	39%	"	0	2	99	44
3	"	3	42%	"	0	2	97	48
4	"	3	40%	"	0	2	99	35
5	"	3	45%	"	0	2	100	49
6	"	3	42%	"	0	2	"	40
7	"	3	41%	"	0	2	"	34
8	"	3	39%	"	0	2	"	40
9	B803B	4	55%	"	0	1	99	35
10	"	4	55%	"	0	1	100	25
Average							99.3	38.8
			Standard Deviation				+ 6.9	
			Probable Error				+ 1.5	

PYRETHRUM — 1 lb. per gal. in Paint and Varnish Makers' Naphtha

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817A	5	45%	85°F.	0	0	100	80
2	"	5	48%	"	0	0	"	88
3	"	5	47%	"	0	0	"	85
4	"	5	41%	84°F.	0	0	"	85
5	"	5	45%	85°F.	0	0	"	78
6	B819B	3	52%	"	0	3	99	82
7	B820A	3	43%	"	0	2	99	82
8	B820B	4	44%	"	0	2	100	77
9	B821A	3	40%	"	0	3	"	75
10	"	3	41%	"	0	3	99	79
Average							99.7	81.1
			Standard Deviation				+ 3.8	
			Probable Error				+ 0.8	

DISINFECTANTS

Any disinfectants you buy from us, whether they are Coal Tar or Pine Oil Disinfectants, meet with all regulations of the Insecticide Act of 1910.

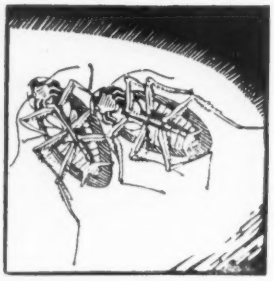
A guaranteed analysis will be gladly furnished upon request.

Shipments can be made direct to your customers under YOUR NAME AND BRAND at no extra cost.

Write for Folder Showing Our Complete Line of Specialties

THE CHEMICAL SUPPLY COMPANY

2450 CANAL ROAD CLEVELAND, OHIO



The Effective Insecticide

Quick — Positive — Safe

The average user of insecticides demands two things —quick action and certain death. Insect annoyance must be stopped promptly and permanently.

LETHANE 384

acts with surprising speed and with absolute certainty. It will pay you to use Lethane 384 as the active component of your insecticide.

Röhm & Haas Co., Inc.

222 West Washington Square

Philadelphia Pennsylvania

PYRETHRUM — 1 lb. per gal. in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B819A	4	37%	85°F.	0	3	100	71
2	B819B	3	52%	"	0	3	"	85
3	B820A	3	43%	"	0	2	"	72
4	B820C	4	43%	"	0	0	"	66
5	B821A	3	37%	"	0	3	"	68
6	"	3	37%	"	0	3	99	63
7	B821B	4	43%	84°F.	0	2	100	64
8	"	4	43%	85°F.	0	2	"	60
9	"	4	43%	"	0	2	"	67
10	"	4	43%	"	0	2	"	70
Average							99.9	68.6
			Standard Deviation				± 6.5	
			Probable Error				± 1.4	

PYRETHRUM—1 lb. per gal. + 10% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B786A	5	47%	85°F.	0	0	99	69
2	B787B	3	33%	"	0	0	97	67
3	"	3	33%	"	0	0	95	58
4	B787C	4	42%	"	0	1	99	59
5	"	4	43%	"	0	1	90	62
6	B788B	3	55%	"	0	1	97	51
7	B788D	5	39%	"	0	0	100	61
8	B793B	3	31%	"	0	0	86	36
9	B793B	3	32%	"	0	0	93	52
10	"	3	32%	"	0	0	86	36
Average							94.2	55.1
			Standard Deviation				± 10.9	
			Probable Error				± 2.3	

PYRETHRUM—1 lb. per gal. + 20% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	5	50%	85°F.	0	0	100	57
2	"	5	45%	"	0	0	"	74
3	B817C	5	38%	"	0	2	"	51
4	"	5	38%	"	0	2	"	51
5	B818A	4	39%	"	0	2	"	54
6	B819A	4	40%	"	0	3	99	60
7	B820A	3	37%	"	0	2	100	68
8	B820C	3	43%	"	0	0	"	45
9	B821A	3	39%	"	0	3	"	54
10	B821B	4	44%	"	0	2	"	45
Average							99.9	55.9
			Standard Deviation				± 8.8	
			Probable Error				± 1.9	

PYRETHRUM—1 lb. per gal. + 40% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	5	49%	85°F.	0	0	100	65
2	"	5	44%	"	0	0	99	64
3	B817C	5	38%	84°F.	0	2	100	53
4	B818A	4	39%	85°F.	0	2	98	60
5	B819A	4	45%	"	0	3	95	61
6	B819B	3	37%	"	0	3	100	66
7	B820A	3	50%	"	0	2	99	60
8	B820C	4	46%	"	0	0	98	43
9	B821A	3	39%	"	0	3	94	49
10	B821B	4	44%	"	0	2	98	48
Average							98.1	56.9
			Standard Deviation				± 7.5	
			Probable Error				± 1.6	

PYRETHRUM—1 lb. per gal. + 75% Light Lubricating Oil in Kerosene

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	5	44%	85°F.	0	0	85	57
2	"	5	37%	"	0	0	93	62
3	B817C	5	39%	"	0	2	94	50
4	B818A	4	45%	"	0	2	89	42
5	"	4	35%	"	0	2	93	42
6	B819B	3	60%	"	0	3	91	45
7	"	3	46%	"	0	3	91	52
8	B820B	4	47%	"	0	2	71	46
9	B820C	4	39%	"	0	0	76	45
10	B821A	3	44%	"	0	3	87	36
Average							87.0	47.7
			Standard Deviation				± 7.3	
			Probable Error				± 1.6	

PYRETHRUM—1 lb. per gal. in Light Lubricating Oil

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B817B	5	46%	85°F.	0	0	70	47
2	"	5	37%	"	0	0	83	47
3	B817C	5	39%	"	0	2	87	42
4	B818A	4	42%	"	0	2	72	38
5	"	4	35%	"	0	2	72	42
6	B819B	3	60%	"	0	3	71	44
7	B820A	3	45%	"	0	2	78	44
8	B820B	4	47%	"	0	2	56	44
9	B820C	4	39%	"	0	0	69	31
10	B821A	3	44%	"	0	3	66	35
Average							72.4	41.4
			Standard Deviation				± 4.9	
			Probable Error				± 1.0	

economy . . .

for manufacturers of

soaps . . . . .

disinfectants . .

polishes, etc. . .

USE—

"ANDRO"

MM&R

an oil citronella substitute

M M&R MAGNUS

MAGNUS, MABEE & REYNARD, INC.

32 Cliff St. New York

ESTABLISHED 1895

Essential Oils

Aromatic Chemicals *Perfume Materials*

Nineteen Qualified Sales Representatives Acquainted with Your Needs Visit Practically Every City in the United States Periodically.

12 PLANTS

for Immediate and Economic Service to the

SOAP AND DISINFECTANT INDUSTRY

The advantageous locations of the 12 Reilly Plants permit of excellent service on a wide range of coal tar products including—

CRESYLIC ACID
CRESOL
CRESOL U.S.P.
XYLENOL
TAR ACID OILS
NAPHTHALENE

Reilly TAR & CHEMICAL CORPORATION

REILLY
TAR & CHEMICAL CORPORATION

MERCHANTS BANK BUILDING • • • INDIANAPOLIS, IND.

SEATTLE, WASH. • PROVO, UTAH • MINNEAPOLIS, MINN. • CHICAGO, ILL. • GRANITE CITY, ILL. • INDIANAPOLIS, IND. • DOVER, OHIO • FAIRMONT, W. VA. • NEWARK, N. J. • NORFOLK, VA. • CHATTANOOGA, TENN. • MOBILE, ALA.

SPECIALTY SOAPS

LIQUID SOAP BASE
Coco Oil—60%—Natural, Opal, Green

LIQUID SOAPS
Coconut ..... 10% to 45%
Olive Oil .... 10% to 30%
Colored and Perfumed

SCRUBBING SOAPS
Pine, Sassafrass, Plain

LIQUID SHAMPOOS
Coconut Oil .. 30% to 45%
Olive Oil 30%
Castile 30%

POWDERED and GRANULATED SOAPS
Castile, U. S. P.
Coco Castile 50-50
Pure Coconut

SOFT POTASH SOAPS
Light and Dark
U. S. P. 9th and 10th

PHONE CUMBERLAND 6-2800

KRANICH SOAP CO.
54-60 RICHARDS ST. BROOKLYN, N.Y.

PYRETHRUM—1 lb. per gal. in a Heavy Stock Spray Base

Test	Fly Batch	Age of flies in days	Humidity of chamber	Temp. of chamber	Kerosene check 10 min.	Kerosene check 30 min.	Knock-down 10 mins.	Kill 24 hours
1	B803B	4	43%	85°F.	0	1	70	46
2	"	4	43%	"	0	1	66	41
3	"	4	44%	"	0	1	68	35
4	"	4	43%	"	0	1	63	40
5	"	4	41%	"	0	1	56	34
6	B819B	3	60%	"	0	3	57	37
7	B820A	3	45%	"	0	2	69	43
8	B820B	4	46%	"	0	2	74	36
9	B820C	4	39%	"	0	0	71	36
10	B821A	3	44%	"	0	3	76	25
Average							67.0	37.3
			Standard Deviation				± 5.5	
			Probable Error				± 1.2	

Each test is composed of ten individual tests by the Peet-Grady method, and calculation of the probable errors of each series shows the results to be uniform and dependable. The kerosene checks tabulated were obtained with the kerosene which we regularly use as a diluent, or solvent in our insecticide tests. To determine whether the carriers used throughout the series given above were themselves insecticidally effective, similar tests were run, with the following results:

Oil	Fly Batch	Knockdown in 10 min.	Knockdown in 30 min.
Paint and Varnish Makers' Naphtha	B820C	0	0
Kerosene	"	0	0
Light Lubricating Oil	B821B	0	0
Heavy Stock Spray Base	"	0	3

From the complete report of the tests, the following summary is obtained:

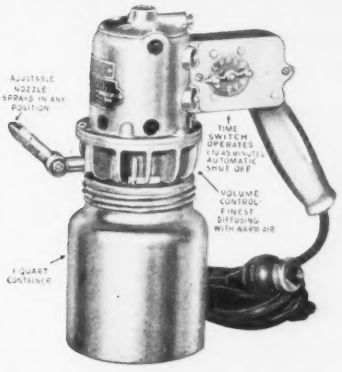
Carrier	Insecticide	Knockdown 10 min.	Kill 24 hours
Paint and varnish makers' Naptha	Lethane 384—4%	100	90.1
Kerosene	"	100	76.7
Kerosene plus 10% light lubricating oil	"	99.7	64.4
" 20% "	"	99.9	62.9
" 40% "	"	99.9	54.5
" 75% "	"	99.9	55.1
Light Lubricating oil	"	99.9	43.6
Heavy Stock Spray Base	"	99.3	38.8
Paint and varnish makers' naphtha	Pyrethrum—1 lb. per gal.	99.7	81.1
Kerosene	"	99.9	68.6
Kerosene plus 10% light lubricating oil	"	99.2	55.1
" 20% "	"	99.1	55.9
" 40% "	"	98.1	56.9
" 75% "	"	87.0	47.7
Light lubricating oil	"	72.4	41.4
Heavy Stock Spray Base	"	67.0	37.3

Comparison of the results summarized here, with the viscosities of the oils used as carriers, shows that the killing power of the insecticide varies inversely with the viscosity. Since the boiling points of the oils tested here increase in the same order as the viscosities, it might be a possible conclusion that the killing power varies inversely with the boiling point, but we do not feel that this is the true criterion, although it is a fact that we have no conclusive evidence to support this feeling. It certainly, however, seems much more reasonable to attribute the variation in effectiveness of an insecticide to the extent, or ease, with which its vehicle penetrates the spiracles than to attribute it to so indefinitely related a property as the boiling point. We believe that the true picture is somewhat as follows:

The mode of action is, first of all, purely physical, that is, the insecticide enters the insect. The depth to which it penetrates is definitely related to the viscosity, but since most of these bases, at least those which we ourselves have tested, are without striking insecticidal power, the oils themselves, though penetrating to differ-

IT'S HERE!

AUTOMATIC—SAFE—TROUBLE FREE AND FINEST *CONTROLLED* ATOMIZATION


ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
TIME SWITCH OPERATES FOR 45 MINUTES AUTOMATIC SHUT OFF
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
1 QUART CONTAINER

WITH THE NEW BREUER'S

TORNADO

ELECTRIC SPRAYER (Model 54)

Here is the sprayer you've been looking for. It's entirely automatic and trouble free. Simple and *safe*, it doesn't require a master mechanic to operate it. Just set the automatic time switch at any point from 1 to 45 minutes and it will spray the desired amount of liquid without any further attention on the part of the operator—automatically shuts off. Light and portable, the TORNADO can also be used for hand spraying if desired.

An adjustable nozzle can be set to spray in any position. Sturdy and durable, the TORNADO will completely eliminate the annoying sprayer troubles that create customer dissatisfaction that reflects on your product.

The new TORNADO Sprayer syphons your insecticide through the rotor chamber where it is warmed so as to get the very finest diffusion obtainable. It sprays your products at full strength: there is no weakening dilution of the killing power by moisture. Of great advantage is the exclusive TORNADO VOLUME CONTROL which enables the operator to spray one ounce every 2 to 4 minutes with a fine or heavy spray as required.

Compare this new TORNADO Sprayer point for point. See for yourself the many superior and exclusive features. Offer your customers the best in sprayer performance.

Write at once for complete information and prices before buying sprayers. It will be distinctly to your advantage. Your inquiry will be sincerely appreciated.

BREUER ELECTRIC MFG. CO.
862 Blackhawk St. Chicago, Ill.

We make electric sprayers of all types and to meet every condition in the field. We do not manufacture insecticides—we specialize in electric sprayers correctly built to meet your needs. Ask about the complete TORNADO Line.

- *LABEL CLAIMS?*
- *COMPOSITION?*
- *CAN IT BE IMPROVED?*
- *DOES IT COMPLY WITH SPECIFICATIONS?*

Food Drug and Cosmetic Problems Now Take Precedence

Over Twenty-Five Years of Comprehensive Service in these fields. Researches, Analyses, Interpretations.

PEASE LABORATORIES, INC.
Chemists, Bacteriologists and Sanitarians
39 WEST 38TH STREET NEW YORK, N. Y.

SOAP BASE

1. Made from highest grade specially treated materials.
2. High soap content.
3. Readily soluble.
4. Reaction neutral.
5. Maximum lather.
6. Supplied in natural, opal, wine and other desired colors—scented or unscented.

DISINFECTANTS

SOLUBLE AND EMULSION TYPES
CO-EFFICIENTS 2 TO 60

NRA MEMBER U.S. WE DO OUR PART

FERGUSSON LABORATORIES
(Div. of Alex. C. Fergusson Co.)
EST. 1855
24 OREGON AVENUE PHILADELPHIA, PA.

Our products are guaranteed as to test and quality.

ent depths, show no significant difference in killing power. When, however, the oil or carrier contains a toxic component, such as Lethane 384, pyrethrum, rotenone, or whatnot, the depth of penetration becomes an important factor, because as the penetration becomes deeper, more vital parts are subjected to contact with the insecticide and are exposed to its action.

To reduce the whole matter to a concrete practical basis, this work indicates that the insecticide manufacturer, seeking to make a product of maximum effectiveness, must consider not only the toxic agent which he uses, but the vehicle in which it is applied. The killing power of powerful insecticidal materials can be materially increased if dissolved in oils of proper viscosity, i.e., low, viscosity.

—o—

Cardboard Boxes Not Mothproof

Cardboard containers impregnated with cedar oil, or used with cedar chips, paradichlorobenzene or naphthalene, have failed to impress the Bureau of Entomology of the Department of Agriculture with their effectiveness as clothes moth repellants. Following experiments with the numerous types that came on the market during the past year, the Bureau reported they are of no value as protectors against clothes-moth infestation.

When the tests were made, the cedarized containers were set inside a closet constructed of wall board and containing 130 cubic feet of space. Adult clothes moths were introduced inside the large closet on August 8, 11 and 16, 1933. On September 5, 1933, the containers were removed and opened. Large numbers of adult clothes moths were found inside them and the pieces of woolen cloth fastened to the interior of the containers were found to be heavily infested with clothes moth larvae which had developed from eggs laid on the cloths by the female moths introduced into the large closet. The larvae had grown well and had caused serious damage to the cloth.

These experiments, the Bureau considers, indicate that the clothes-moth adults can readily pass through the cracks about the lids of cardboard containers and that the containers are not sufficiently tight or otherwise conditioned to give protection to clothing against moth injury.

Tests to determine the value of vetivert roots indicate that these roots, although advertised to be of value in protecting clothing stores with them, are of no value as a protection against clothes moths, the Bureau claims. Tesas similar to those made with cedarized boxes were conducted and revealed larvae growing rapidly although surrounded by roots. Experiments are still in progress.

—o—

The Sherwood Petroleum Co., Brooklyn, manufacturers of pyrethrum concentrates, have installed complete Peet-Grady testing equipment in their Bush Terminal plant, including an insectary. They advise us that any member of the trade is welcome at any time to see these Peet-Grady tests performed.

Soaps that have

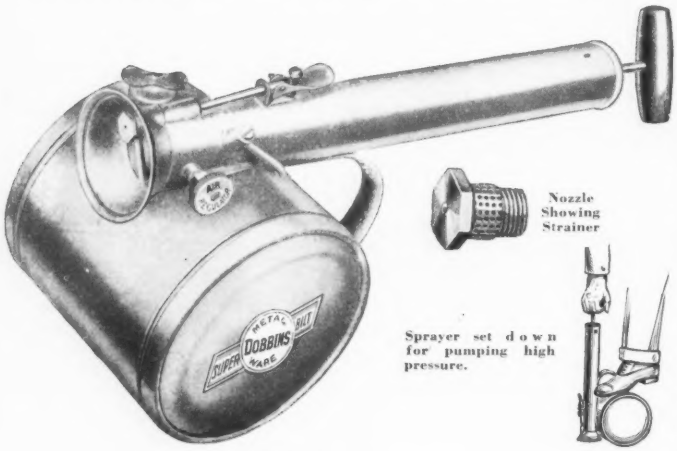
CONSISTENT AND INCREASING SALES

have something buyers want

Myco Oil Soaps have that something - - uniformity, quality and low cost. Read why, then write for further details . . .

MYCO OIL SOAPS
For Effectiveness with Economy
More neutral, truer to consistency, much clearer and transparent. These compounds range in anhydrous soap content from 25% to 65% according to requirements. The purest of vegetable oils saponified with the highest grade alkalies and skillfully compounded make them neutral, quickly dissolving in water, highly saponious, and thoroughly cleansing. More economical because more effective—and properly priced.
USES—For cleaning highly finished surfaces, Furniture, Automobiles, Woodwork, Floors of all types, especially Linoleums, Terrazzo—excepting rubber and marble. Keeps floors free from grime and dirt, polishes the surface and acts as a preservative.
PINE OIL SCRUBBING SOAP
For those who prefer a Liquid Soap
A pure vegetable oil potash product, neutral, and liquified. Has a pleasant pine odor, and some disinfectant qualities, contains no injurious ingredients likely to harm highly finished surfaces.
USES — An efficient liquid cleaner and polish for all types of floors (excepting rubber) and also woodwork, metal ware, windows, bathtubs, kitchen sinks, and many other cleaning surfaces. Dissolves dirt, cleaning the surface with a little rubbing or scrubbing.
Samples, prices and further information forwarded for the asking. Write today.
MASURY YOUNG CO.
76 Roland St. • Boston, Mass.
MYCO PRODUCTS
75 Years of Soap Making Experience-At Your Service.

DOBBINS *high pressure* CHEMICAL SPRAYER



Nozzle Showing Strainer

Sprayer set down for pumping high pressure.

Controlled Atomization!

PERFECT atomization is essential to the effectiveness of Insecticides, Disinfectants, and Germicides.

CONTROLLED ATOMIZATION, through air regulator, is an exclusive patented feature of Dobbins high pressure Chemical Sprayers.

THE NOZZLE has a wide range of adjustment, from a forceful, penetrating spray, to a medium mist or a fine floating fog, at the will of the operator.

Write for complete catalog and price list.

We also manufacture other Sprayers, Mop Wringers, Sanitary Chemical Closets, and other metal specialties.

No. 35—3-qt. capacity

No. 30—1½-gal. capacity

DOBBINS MANUFACTURING COMPANY

NORTH ST. PAUL, MINNESOTA
PORTLAND, OREGON

PYRETHRUM

BUY where you can get the most "kill per dollar."

BUY from bulk suppliers only.

WE TREAT PYRETHRUM AS A COMMODITY AND NOT A BRANDED ARTICLE

DERRIS

BUY where you can be sure of deliveries.

BUY where you can be sure of a standard quality.

WE HAVE SOLVED THE MILLING PROBLEM AND CAN GUARANTEE DELIVERY

W. BENKERT & COMPANY, INC.

100 GOLD STREET, NEW YORK CITY

Detroit	*Baltimore*	*Chicago*	*St. Louis*
R. M. Stevenson	Russell Stoddard	Even M. Tysdal	Joseph Fahey
2457 Woodward Ave.	17 S. Charles St.	325 W. Huron St.	Cotton Belt Building

Moburg Completes Fly-Tox Control

The Rex Research Corp., Toledo, organized in 1925 to handle foreign sales of Fly-Tox, has just acquired from Rex Research, Inc., its plants, inventories and American rights for Fly-Tox. Rex Research, Inc., went into receivership in December, 1932. The purchase was made for cash and the transaction places F. O. Moburg, president of Rex Research Corp., in complete control of the entire business. He states that Fly-Tox will be advertised in the coming season on a more extensive basis than ever before. The officers of the Rex Research Corporation are: president and general manager, F. C. Moburg; fist vice-president and treasurer, F. E. Seeley; second vice-president and assistant manager, H. W. Moburg; secretary, T. Krenz; assistant secretary, H. Halm. (For earlier details, see *Soap*, Dec., 1933, pg. 117.)

—o—

Clifton Chemical Co., New York, has issued a folder describing their new package for deodorant cakes. Each tube contains one dozen four-ounce cakes wrapped in cellophane in four different odors. Another new folder describes *Shine-Brite*, a neutral vegetable oil liquid cleanser recommended for use on floors.

—o—

The new "Leecyl," fluid saponified disinfectant, is reported proving a popular line in England. The manufacturers, Leonard Lee & Co., Ltd., London, report a steady increase in trade.

—o—

A derris extract in kerosene acted more rapidly on the house fly than did kerosene alone, but more slowly than pyrethrum in kerosene. The effect of derris, however, was more prolonged. The most effective mixture consisted of one-sixth derris extract (extract from 23.8 g. derris root and 100cc. kerosene A.P.I. range 192-269°) and five-sixths pyrethrum extract (from 11.9 g. pyrethrum powder and 100cc. kerosene). Kerosene extracts of quassia and of hellebore were not effective. H. H. Richardson. *J. Econ. Entomol.* volume 26, pages 914 and 915.

—o—

Commercial acetone extracts of derris containing 2.3 to 5 per cent of rotenone and 16 to 18 per cent total extractives are diluted to form sprays. Great dilution with water or wetting agents forms large quantities of a precipitate which clogs the spray nozzles. The precipitate also contains some of the active ingredients and the spray is made less active. If the original acetone extract is mixed with an equal volume of acetone before dilution, precipitation is prevented. H. H. Richardson, *J. Econ. Entomol.* volume 26, page 995.

—o—

The offices of Joseph Turner & Co., New York, have been moved to 500 5th Ave. from 19 Cedar Street. Among the firms represented by the Turner Organization are: Niagara Alkali; Oldbury Electro-Chemical, Buffalo Electro-Chemical and Colonial Salt.

CHEMICALS

Barrett Standard Chemicals are produced to strict specifications under rigid scientific control. The result is uniformly dependable, high-quality products.

A competent Barrett Technical Staff will gladly assist you in production problems involving the use of Barrett Standard Chemicals. Phone, wire or write.

◆

BARRETT STANDARD CHEMICALS

PHENOL (Natural)
U. S. P. 39.5° M. Pt. and 40° M. Pt.
Technical 39° M. Pt.
Technical 82-84% and 90-92%

CRESOL
U. S. P., Meta Para, Ortho, Special Fractions.

CRESYLIC ACID
99% Straw Color and 95% Dark.

XYLENOLS
TAR ACID OILS
NAPHTHALENE
Crude, Refined Chipped, Flake and Ball.

PYRIDINE
Refined, Denaturing and Commercial.

HYDROCARBON OIL . . . BENZOL . . . TOLUOL . . . XYLOL . . . SOLVENT NAPHTHA . . . HI-FLASH NAPHTHA

TRADE B MARK

THE BARRETT COMPANY
40 RECTOR ST. NEW YORK, N. Y.

"SERRID" PRODUCTS of DERRIS ROOT

A complete range of Derris products uniform as to qualities, standardized as to Rotenone content, and sold on this basis. Available in large quantities to manufacturers of insecticides.

For Fly Sprays
"SERRID" DOUBLE X

A combination Rotenone pyrethrum oil concentrate that will stay in solution,—a decided improvement in the field. Sold on a kill basis as high as 85%. With this base manufacturers may improve their product and lower their costs.

For Agricultural Sprays
"SERRID" SUPERSPRAY

A finished concentrated liquid plant spray sold in bulk for repackaging. Highly effective against mealy bug and red spider. Tested and proven by prominent entomologists.

DERRIS, Inc.
79 WALL STREET, NEW YORK

MEMBER NATIONAL ASSN. INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

Powdered Root, standardized, is most effective in household powders. For protection of vegetable and fruit crops, powdered Derris Root is not only efficacious but leaves no poisonous residue.

50%
LIQUID SOAP SUPER-CONCENTRATE
laboratory tested and guaranteed.

SOAP VALUE: 50% Anhydrous soap content.
DISPERSION: Dilutes immediately in hot or cold water.
SOLUTION: Crystal clear.
SEDIMENT: Very slight.
ALKALINITY: Neutral.
LATHER: Profuse.

This product will save you money, time and labor.
Send for further information, samples and price.

NEW YORK SOAP CORPORATION
294 PEARL STREET — NEW YORK CITY

Other Quality Products

Liquid Soap 10% to 50%
Liquid Soap Base
Liquid Floor Cleanser
Shampoo Base
Liquid Shampoo
Coal Tar Disinfectant
Pine Disinfectant
Soft Potash Soaps

Dog Skat is a new product being marketed by the Hammond Paint and Chemical Co., Beacon, N. Y., which is designed to keep cats and dogs away from ornamental hedges, shrubs, trees and bushes. The product is packed in tubes which are hung in inconspicuous places among the shrubs. The seal is broken and the product slowly exudes. The odor, according to the maker, keeps the animals away.

—o—

C. C. Concannon, chief of the chemical division, U. S. Bureau of Foreign and Domestic Commerce, advises that the division's services to the drug trade will be continued in 1934. These services consist of three export statements, three import statements, one of imports for consumption, all published monthly, and a weekly bulletin which gives news of the world affecting the drug trade of the United States.

—o—

Revisions suggested by the National Recovery Administration were made in the code for manufacturers of agricultural insecticides and fungicides at a recent meeting at the Chemists' Club, New York. H. Hitchener, president of Lucas Kil-Tone Co., Vineland, N. J., presided at the meeting.

—o—

A. Wineburgh, president of Carbona Products Co., is the author of an article on the N R A appearing in the January issue of *Printers' Ink Monthly*. It is entitled, "Manufacturer Tells Why He Backs N R A."

—o—

Philip P. Gray resigned his position with the Pease Laboratories, Inc., New York, as of January 1, and became associated with the Wallerstein Laboratories, New York.

That *extra power*
for
Perfume Disseminators

BOUQUET K.M.S.

makes an ideal product. A universally popular type, refreshing and powerful.

$3.00 the lb.

A sample and further suggestions for the asking.

COMPAGNIE PARENTO, Inc.
CROTON-ON-HUDSON, N. Y.
New York City Toronto

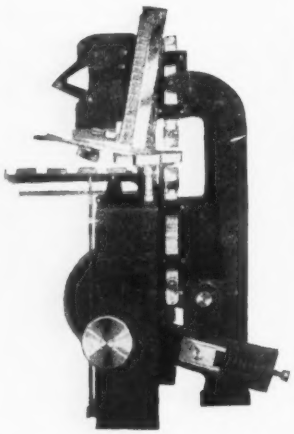
Bound Volumes of "SOAP" and "OIL & FAT INDUSTRIES"

A few complete volumes of SOAP and OIL & FAT INDUSTRIES are available, attractively bound in blue cloth covered card board—a valuable addition to your technical library. SOAP volumes cost $10.00 each, OIL & FAT INDUSTRIES $6.00 each.

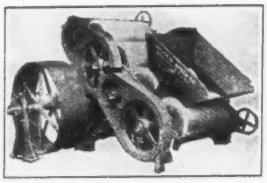
SOAP, Vol. 3, 1927-28	6 sets
SOAP, Vol. 4, 1928-29	1 set
SOAP, Vol. 5, 1929-30	1 set
SOAP, Vol. 6, 1930 (Contains 4 issues—$5.00)	3 sets
SOAP, Vol. 7, 1931	4 sets
SOAP, Vol. 8, 1932	3 sets
O&FI, Vol. 6, 1929	3 sets
O&FI, Vol. 8, 1931	5 sets

MACNAIR DORLAND CO., INC.
136 LIBERTY ST. NEW YORK CITY

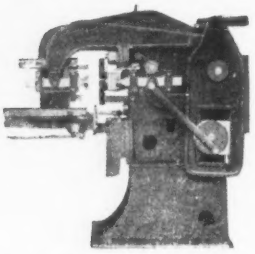
Special Offerings of SOAP MACHINERY *Completely Rebuilt!*



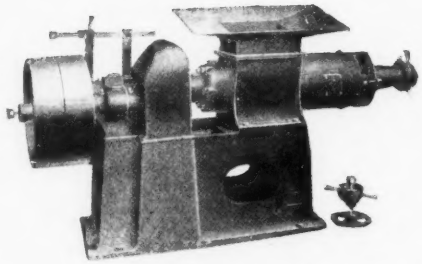
Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our own shops.



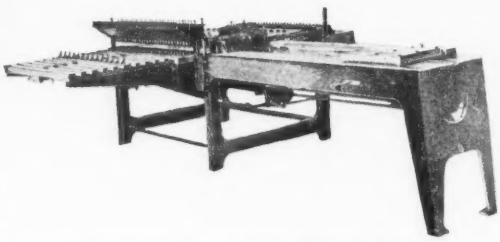
H-A SOAP MILL
This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls.



4 JONES AUTOMATIC combination laundry and toilet soap presses. All complete and in perfect condition.



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.



2 Automatic Power Soap Cutting Tables

NEW CRUTCHERS!

This Newman brand new, all steel steam jacketed soap crutcher. Will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap in addition to other new soap machinery such as frames, cutting tables, etc. Send for complete list.

ADDITIONAL USED SOAP MACHINERY

H-A 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.
Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.
Ralston Automatic Soap Presses.
Scouring Soap Presses.
Empire State, Dopp & Crosby Foot Presses.
2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.
H-A 4 and 5 roll Steel Mills.
H-A Automatic and Hand-Power slabbers.
Proctor & Schwartz Bar Soap Dryers.
Blanchard No. 10-A and No. 14 Soap Powder Mills.
J. H. Day Jaw Soap Crusher.
H-A 6, 8 and 10 inch Single Screw Plodders.
Allbright-Nell 10 inch Plodders.
Filling and Weighing Machines for Flakes, Powders, etc.
Steel Soap frames, all sizes.
Steam Jacketed Soap Remelters.
Automatic Soap Wrapping Machines.
Glycerin Evaporators, Pumps.
Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.
Perrin 18 inch Filter Press with Jacketed Plates.
Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.
Day Grinding and Sifting Machinery.
Schultz-O'Neill Mills.
Day Pony Mixers.
Gardiner Sifter and Mixer.
Proctor & Schwartz large roll Soap Chip Dryers complete.
Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.
Day Talcum Powder Mixers.
All types and sizes—Tanks and Kettles.
Ralston and H-A Automatic Cutting Tables.
Soap Dies for Foot and Automatic Presses.
Broughton Soap Powder Mixers.
Williams Crutcher and Pulverizer.
National Filling and Weighing Machines.

All used equipment rebuilt in our own shops and guaranteed first class condition.

Send us a list of your surplus equipment—we buy separate units or complete plants.

NEWMAN TALLOW & SOAP MACHINERY COMPANY

1051 W. 35th ST.
CHICAGO

Our Forty Years Soap Experience Can Help Solve Your Problems

CLASSIFIED ADVERTISING

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 136 Liberty St., New York.

Note: All advertisements must be in publisher's hands by the first of the month for that month's issue.

Positions Wanted

Position Wanted by superintendent and soapmaker. Can make and analyze all kinds of soap and soap materials. Address Box No. 303, care *Soap*.

Plant Superintendent, Chemical Engineer—Thorough and wide experience in the production and manufacture of boiled and cold made soaps on large scale. Address Box No. 304, care *Soap*.

Specialty Chemist, 26, B.S., 3¼ years' experience in formula development and factory management. Automotive and household lines of cleaners and polishes including wax compounds and emulsions. Student of colloid chemistry and its practical applications. Address Box No. 299, care *Soap*.

Position Wanted by reliable soapmaker with twenty years' experience. Will go anywhere. Address Box No. 305, care *Soap*.

Salesman (34) fine personality, seeks substantial line for Metropolitan area. Interested in either bulk or packaged merchandise. Address Box No. 301, care *Soap*.

Sales and Merchandising—This man is in the prime of life—ambitious, energetic, not a swivel chair type, with 20 years' business experience mostly sales, merchandising, advertising in Soap, Drugs, and allied industries. Has proven sales ability, can organize and direct, devise ways and means of increasing business from present accounts and produce some new ones. Looking for opportunity to prove worth, pay check secondary importance. Haven't much cash but might make modest investment in right proposition. Write Box No. 300, care *Soap*.

Soap Maker and Chemist—Can make all kinds of soaps. Has long experience in soap business and good record. Desires new connection. Address Box 291, care *Soap*.

Here It Is—*The Handy Sprayer You've Been Looking For!*

Pint Size
Height, 10 in.

Quart Size
Height, 11½ in.

FOR spraying disinfectants, moth and fly killing liquids in homes, schools, hospitals, factories, poultry houses, etc. For spraying insecticides on flowers, house plants, dampening cigar wrappers and clothes before ironing. Used in beauty parlors for spraying finger waving liquid on the hair.

Nozzle throws powerful, large, broad mist. Will spray in any direction. Long pump stroke, easy pumping.

Sprayer is made entirely of heavy brass, nickle-plated throughout. May be entirely disassembled for cleaning when desired. Sprayer screws to blue glass bottle. Furnished complete with bottle or may be had without bottle in quantities with special bottle screw cap.

We Also Manufacture a Full Line of:

HAND SPRAYERS
COMPRESSED AIR SPRAYERS
POWDER DUSTERS
ELECTRIC PAINT SPRAYERS
WHEELBARROW SPRAYERS
BUCKET & WHITE WASH PUMPS
BARREL SPRAY PUMPS
BOTTLE SPRAYERS
LAWN SPRINKLERS
NOZZLES
FIRE PUMPS

Descriptive Literature and Prices on Any of the Above Gladly Sent on Request

Manufactured by
D. B. SMITH & CO. UTICA, N. Y.

SOAP MACHINERY

Every item shipped from our shops at Newark, N. J., is thoroughly overhauled and rebuilt before shipment.

SPECIALS

1—Soap Chip Dryer, 1200 lb.
2—Dopp 650 gal. Steam Jacketed Kettles.
1—Dopp 1200 lb. Steam Jacketed Crutcher.
1—Hershey 1000 lb. Horizontal Jacketed Crutcher.
1—1000 lb. All Steel Soap Powder Mixer.
2—Holmes & Blanchard 24" and 36" 4 cage Disintegrators, for grinding soap powder—no screens, no plugging.

25—Soap Frames, 60"x45½"x14", with trucks.
6—Plodders, Houchin, Rutschman, 4", 4½" double screw, 6", 8", 10".
14—Filter Presses, 42"x42" to 12"x12".
8—Granite Mills, 3 and 4 roll, 12", 18" and 24".
15—Horizontal Mixers, Jacketed and Plain, 15 gal. to 1000 gal.

MISCELLANEOUS—Kettles, Mixers, Pony Mixers, Powder Fillers, Tube Fillers, Labelers, Soap Presses, Soap Wrappers, Tanks, Boilers, Pumps, etc.

Send for Latest Bulletin.

CONSOLIDATED
PRODUCTS COMPANY, INC.

15-21 Park Row, N. Y. C. BArclay 7—0600

We buy your idle Machinery—Single items or entire plants.

KOPPERS
WHITE TAR

Also

DISINFECTANTS

THE WHITE TAR COMPANY
OF NEW JERSEY, INC.
KEARNEY NEW JERSEY
Phone: Kearney 2-3600

FLOOR WAX

. . . gloss drying
. . . resists water
. . . will not spot

HAMMOND'S self-polishing liquid wax dries to a bright gloss,—not to a dull "bloom". Made from pure carnauba wax,—hence water resistant and will not spot. Contains a higher percentage of solids to give a better, more durable, longer lasting floor finish. Not slippery. The finest product of its kind.

Hammond's self-polishing liquid wax is offered in bulk only to the jobbing and repackaging trade. Available at very attractive prices to the trade. Let us send you samples, prices, and further details about this new Hammond product.

Since 1875

HAMMOND
Paint & Chemical Co.
BEACON NEW YORK

FLY SPRAY IN GLASS

Is any of your fly spray sold in glass, or do any of your customers use glass tank sprayers?

If so, make your fly spray with

AN-FO No. 20

Your fly spray will have the full KILL, and it will also have the rich golden COLOR extracted when 1 lb. of pyrethrum flowers is percolated with 1 gallon of petroleum distillate.

THE
ISOLATION PROCESS

carries through the extraction and concentration the full kill, color, and odor of 20 lbs. .9% pyrethrum flowers per gallon.

Write for a sample, and see that your fly spray can have the rich COLOR as well as the KILL at no extra cost.

AN-FO BRAND

No. 20

CONCENTRATED PYRETHRUM EXTRACT

THE IDEAL FLY SPRAY MATERIAL

Kill . . . Color . . . Odor

AN-FO MFG. COMPANY, OAKLAND, CAL.

"FILMA-SEAL"

(the double seal of cap and film)

Prevents evaporation and leakage of
Chloroform and other volatile products

STOPS Tampering and is a guard against Counterfeiting.
Furnished with our C. T. Screw Caps or inserted in our plastic caps.
Quickly Applied No added labor cost.

FERDINAND GUTMANN & CO.
Established 1890
BROOKLYN NEW YORK

U. S. Patents Trade Marks Reg. Pats. Pending

Superintendent—Man for a number of years past in full charge of large soap plant desires to make new conection. Thoroughly versed in all phases of modern soap making. Taking over new position would require ample time to make arrangements with present employer. Address Box 294, care *Soap*.

Positions Open

Wanted: Soapmaker with a good record who is experienced in the manufacture of both hard and soft mill soaps and other specialties for the textile trade. Give complete details regarding experience, salary etc. Address Box No. 297, care *Soap*.

Miscellaneous

For Sale: Five 30-inch 30-plate side-feed Whitney Filter Presses. Fine condition, at bargain. Address The Industrial Materials Company, Buck & McCall Sts., Houston, Tex.

Wanted: Used palm oil casks, large sizes, any quantities. Address Box No. 302, care *Soap*.

Soap Formulas—Manufacturing formulas and complete instructions for their use by mail from man with forty years soap making experience. Any type of soap. Fees extremely moderate. Let me help you solve your plant troubles. Address Box 295, care *Soap*.

Patents and Trade Marks: Patent and profit by your inventions. Register your trade marks and protect your most valuable assets. Expert personal service. Address Lester L. Sargent, Registered Patent Attorney, 1115 K Street, N. W., Washington, D. C.

Glycerine—English firm is interested in making connections for a source of glycerine with American distillers. Prices should be based on five tons B.P. 1260 S.G. packed in 10 cwt. galvanized or tin-lined drums and also in cases of two 56-pound tins. Interested companies may communicate with W. M. Delf & Co., 130 Rice Lane, Liverpool, 9, England.

Wanted—H-A Automatic Steel Soap Cutting Table. Must be in good condition. Address Box 289, care *Soap*.

Pine Oil Disinfectant—Patent covering non-deteriorating pine oil disinfectant for sale cheap. Prevents oxidation and loss of coefficiency so common in pine oil disinfectants. Gives pine oil disinfectant of 4.5 coefficient which does not lose its germicidal

M - O - P - CO

Boiled Down Pure

COTTON SEED

65%—**SOAP**—T. F. A.

Any Quantity

Spot — Shipment

▼

Direct Importers

SUNFLOWER OIL

Raw Refined

▼

MURRAY OIL PRODUCTS CO., Inc.

Members

New York Produce Exchange
Oil Trades Assn. of New York

21 WEST STREET, NEW YORK

LOS ANGELES PHILADELPHIA

STEEL DRUMS

That are built to last!

30-55-110 gal. sizes

The BEST Containers for

LIQUID SOAPS
DISINFECTANTS
CLEANSERS
ESSENTIAL OILS
VEGETABLE OILS
CHEMICALS
GLYCERIN
ETC.

Black, Galvanized, Tinned

Sturdy and long lasting, the Trageser heavy duty steel drum will be carrying your materials to market long after cheap containers have found the junk pile. Order a sample drum.

JOHN TRAGESER STEAM COPPER WORKS
GRAND STREET MASPETH, L. I., N. Y.

Special tanks, tubs, pails, etc.

found money

If *you* are not using Vioflor you are throwing away 40% to 70% of your cost for perfuming insecticides, naphthas, polishes, inks, para-blocks, etc . . . .

Without changing the odor effect now in your product!

It takes but a few minutes to demonstrate this.

Allow us to submit samples and further details.

Manufactured by **CREPIN & DOUMIN, Ltd., London, England**

Sold in the United States and Canada by

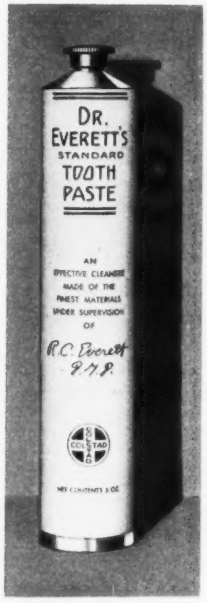
JOHN POWELL & CO., Inc.
114 East 32nd Street :: :: New York, N. Y.

COLLAPSIBLE TUBES

OFFER YOU

1. New Consumer Interest
2. New Sales Opportunities
3. New Display Features

For Your Cream & Paste Products



Let us show you how effectively this can be done by

NATIONAL COLLAPSIBLE TUBE CO.
PROVIDENCE RHODE ISLAND
New York Office—341 Madison Ave., Telephone Murray Hill 2-1626

F. & S.

Quality Colors *for* TOILET SOAPS LIQUID SOAPS

TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.
205 FULTON STREET
NEW YORK, N. Y.
Import—Manufacture—Export

strength. Extra cost negligible. Samples of disinfectant over six years old available for your testing. For further details, write to Box 287, care *Soap*.

P & G Salesmen Meet

A sales conference attended by more than 200 sales representatives of Procter & Gamble Co. was held at the executive offices of the company in Cincinnati, December 15 and 16. Among the speakers were R. R. Deupree, president, Clarence J. Huff, general sales manager, and Ralph F. Rogan, advertising director. They outlined merchandising and advertising plans for 1934 which call for more advertising than in 1933. It was reported that prices of the company's products have been raised about twenty per cent from their lows, and that tonnage for the last half of 1933 was about ten per cent ahead of 1932 figures. Sales for December, it was said, showed an even higher ratio of improvement. The sessions concluded with a dinner at the Netherland Plaza Hotel, Wednesday evening, at which the speakers were William Cooper Procter, chairman of the board; Richard R. Deupree, president, and Herbert G. French, vice-president.

—o—

The first semi-annual convention of the Association of Canadian Perfumers and Manufacturers of Toilet Articles was held at the Royal York Hotel, Toronto, early in December.

NEW AND REBUILT SOAP MACHINERY

We are pleased to announce our department for manufacturing a new complete line of improved soap machinery.

SEND US YOUR REQUIREMENTS. OUR PRICES ARE RIGHT.

1—Jones Automatic Soap Press
1—Proctor Soap Chip Dryer, complete
2—4 and 10 in. H. A. Plodders
1—5 Roller Steel Mill
1—Ralston Power Soap Press
1—Broughton Mixer
2—Houchin-Aiken Foot Presses
3—Jacketed Vertical Crutchers
1—1500 lb. Horizontal Crutcher

Cutting Tables, Slabbers, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, Frames, Pulverizers, Grinders, Amalgamators, Mixers, etc.

Send for Complete List (Bulletin No. 10)

We buy and sell from single items to complete plants.

Stein-Brill Corporation

183 Varick Street — New York, N. Y.
Phone: WAlker 5-6892-3-4 — Cable Address: "BRISTEN"

SPRÜHANLAGEN für WASCHPULVER

(The Spray Process for Soap Powders)

By Bert Thomas
(In German)

The manufacture of soap powders by the latest spray processes receives full discussion both from the theoretical and practical standpoints in this 72-page booklet (in German) prepared from a series of articles in the *Seifensieder Zeitung*.

Copies available at $1.00

Order from

MacNAIR - DORLAND CO.

136 Liberty Street — New York City

Check Must Accompany Order

SHAVING CREAM

TOOTH PASTE

In Bulk Or

Under Your Own Name in our special utbes and cartons. These are lithographed with a blank space for *YOUR* label. In any quantity from one gross up.

GEO. A. SCHMIDT CO.

Manufacturers of SOAPS of Every Description

236-238 West North Avenue
Chicago

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 118, for page numbers. *"Say you saw it in SOAP."*

ALKALIES

American Cyanamid & Chemical Corp.
Columbia Alkali Co.
Dow Chemical Co.
Hooker Electrochemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Stauffer Chemical Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Monsanto Chemical Co.
Naugatuck Chemical Co.
Newport Chemical Works
Sherka Chemical Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fergusson Laboratories
Fuld Bros.
Hammond Paint & Chemical Co.
Harley Soap Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
Masury Young Co.
New York Soap Corp.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
U. S. Sanitary Specialties Corp.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American Cyanamid & Chemical Corp.
Bowker Chemical Co.
Columbia Alkali Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Mechling Bros. Chemical Co.
Monsanto Chemical Co.
Newport Chemical Works
Niagara Alkali Co.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Stauffer Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid oil, etc.)

American Cyanamid & Chemical Corp.
Baird & McGuire, Inc.
Barrett Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

CONTAINERS

Continental Can Co. (Tin Cans)
Maryland Glass Corp. (Bottles)
Metal Package Corp. (Tin Cans)
National Collapsible Tube Co. (Tubes)
Owens-Illinois Glass Co. (Bottles)
R. C. Can Co. (Fibre Cans)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products, Inc.
U. S. Sanitary Specialties Corp.

ESSENTIAL OILS

Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Maybee & Reynard, Inc.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

(*Continued on Page* 116)

Consulting Chemists and Engineers

Specializing in Soaps, Disinfectants, Insecticides, Polishes, Etc.

FOSTER D. SNELL, INC.
Chemists-Engineers

A technical organization offering complete consulting, research, operating and management service.

305 Washington Street Brooklyn, New York

STILLWELL AND GLADDING, Inc.
Analytical and Consulting Chemists

Members Association of Consulting Chemists and Chemical Engineers

80 West Street New York City

CONSULTING CHEMISTS AND ENGINEERS

offering their services to manufacturers of soaps, disinfectants, household insecticides, polishes, cleansers, etc., should keep themselves before the entire industry regularly through the use of space in this department of SOAP.

Skinner & Sherman, Inc.

246 Stuart Street, Boston, Mass.

Bacteriologists and Chemists

Disinfectants tested for germicidal value or phenol coefficient by any of the recognized methods.

Research—Analyses—Tests

Entomological Testing Laboratories, Inc.

We offer you a medium for purchasing insecticides on an intelligent basis.

Entomological testing by the Peet-Grady method, and chemical examination of insecticides are available.

114 E. 32nd St. New York, N. Y.

LLOYD A. HALL
Research and Consulting Chemist

Specialist in the analysis, development and improvement of soaps, disinfectants and allied products since 1915.

Complete Research and Consulting Service

Laboratories, 1415 West 37th Street, CHICAGO, ILL.

We Manufacture

For The Trade ONLY

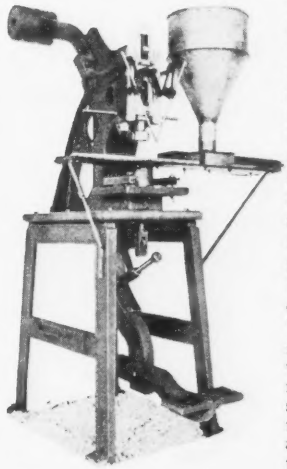
Liquid Soap Base
Auto Soaps
Potash Oil Soap
Shampoo
U.S.P. Cresol Compound
Coal Tar Disinfectants
Liquid Soap
Pine Oil Soap
U.S.P. Green Soap
Shampoo Base
Pine Oil Disinfectants
Insecticides

Ask for samples of these specialty bulk products

HARLEY SOAP CO.

2852 E. Pacific St. Philadelphia

Machine-Made
DEODORANT
CAKES and BLOCKS
are big sellers!



Make your deodorant and moth cakes with this heavy pressure foot press by the cold process and save money while you are increasing sales. A smooth, even cake will sell better because of its improved appearance and will cost less to make because this press not only cuts labor but saves 5% of your raw material. Why not let us make some sample cakes with your own para, naphthalene, etc., and submit complete information regarding cost and manufacturing process?

HOUCHIN MACHINERY CO., INC.
HAWTHORNE, N. J.

RAW MATERIAL and EQUIPMENT GUIDE

(*Continued from page* 114)

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 118, for page numbers. *"Say you saw it in SOAP."*

MACHINERY

Blanchard Machine Co. (Soap Powder)
Ertel Engineering Co. (Liquid Handling)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
Illinois Steel Co. (Stainless Steel)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packaging Machinery)
Struthers-Wells Co. (Process)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

METAL CAPS

Anchor Cap & Closure Corp.
Crown Cork & Seal Co.
Ferdinand Gutmann & Co.

MISCELLANEOUS

Derris Inc. (Derris Products)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

Industrial Chemical Sales Co.
Leghorn Trading Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Theobald Annual By-Products Refinery
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.

PERFUMING COMPOUNDS

Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

PETROLEUM PRODUCTS

Anderson-Pritchard Oil Corp.
Sherwood Petroleum Co.
L. Sonneborn Sons

PYRETHRUM PRODUCTS

(Insect Flowers, Powder and Pyr. Ext.)

An-Fo Mfg. Co. (Extract)
W. Benkert & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
S. B. Penick & Co.
John Powell & Co.
Sherwood Petroleum Co.

SOAP COLORS

Fezandie & Sperrle
Interstate Color Co.
Pylam Products Co.

SOAP DISPENSERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products
U. S. Sanitary Specialties Co.

SODIUM SILICATE

American Cyanamid & Chemicals Corp.
General Chemical Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Hudson Mfg. Co.
Lowell Sprayer Co.
D. B. Smith & Co.
U. S. Sanitary Specialties Corp.
J. A. Vaughan Mfg. Co.

STEEL CONTAINERS

John Trageser Steam Copper Works (Pails and Drums)
Wilson & Bennett Mfg. Co. (Pails and Drums)

TRI SODIUM PHOSPHATE

American Cyanamid & Chemicals Corp.
Bowker Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.

MECHLING'S

EST. 1869

PHILADELPHIA
CAMDEN, N. J.
BOSTON, MASS.

SILICATE OF SODA

MECHLING BROS · CHEMICAL COMPANY

MAILING LISTS

Pave the way to more sales with actual names and addresses of Live prospects.

Get them from the original compilers of basic list information—up to date—accurate—guaranteed.

Tell us about your business. We'll help you find the prospects. No obligation for consultation service.

FREE

60 page Reference Book and Mailing LIST CATALOG

Gives counts and prices on 8,000 lines of business. Shows you how to get special lists by territories and line of business. Auto lists of all kinds.
Shows you how to use the mails to sell your products and services. Write today.

R. L. POLK & CO.
Polk Bldg.—Detroit, Mich.
Branches in Principal Cities
World's Largest City Directory Publishers
Mailing List Compilers. Business Statistics. Producers of Direct Mail Advertising.

HULL
POWDERED
METAL POLISH

When mixed with water gives a stable suspension equivalent in every way to the standard brands.

The Hull Company
305 Washington Street
Brooklyn, N. Y.

Are your products up to date? It is our business to keep those of our clients in step with the times.

Foster D. Snell, Inc.
Chemists-:-Engineers
305 Washington St.,
Brooklyn, N. Y.

INDEX TO ADVERTISERS

For product classification see preceding pages

* For further details see announcement in 1933 SOAP BLUE BOOK.

American Cyanamid & Chemicals Corp. 34
Anchor Cap & Closure Corp 4
Anderson-Prichard Oil Corp 86
An-Fo Manufacturing Co 110

*Baird & McGuire, Inc. 73, 80
*Barrett Co 105
W. Benkert & Co 104
Blanchard Machine Co 65
Book Advertisement 64
*Bowker Chemical Co. ..... November
*Breuer Electric Mfg. Co 101

Chemical Supply Co 98
*Clifton Chemical Co 7
*Columbia Alkali Co. 40
Compagnie Parento 107
*Consolidated Products Co. 109
Continental Can Co. ..... December
Crown Cork & Seal Co 6

*Davies-Young Soap Co 11
Derris, Inc. 106
Dobbins Mfg. Co. 104
*Dodge & Olcott Co. ..... December
*Dow Chemical Co. 92
P. R. Dreyer, Inc. 10
*E. I. du Pont de Nemours & Co ..... December

Eagle Soap Corp. ..... 2nd Cover
*Electro Bleaching Gas Co 8
Entomological Testing Laboratories 115
Ertel Engineering Co. 68

Federal Varnish Co 14
Felton Chemical Co. 9, 94
Fergusson Laboratories 102
Fezandie & Sperrle 112
Anthony J. Fries ..... December
Fritzsche Brothers, Inc. 32
Fuld Bros 70

*General Chemical Co. ..... November
General Naval Stores Co 22
*Givaudan-Delawanna, Inc. ..... 77, 3rd Cover
*Grasselli Chemical Co. 36
Ferdinand Gutmann & Co. 110

Lloyd A. Hall 115
Hammond Paint & Chemical Co. 110
Harley Soap Co. 115
Hercules Powder Co. 88
*Hooker Electrochemical Co. ..... November
Houchin Machinery Co. 62, 115
*Huber Machine Co. 119
Hudson Mfg. Co. ..... December
The Hull Co. 117

Illinois Steel Co 58
Industrial Chemical Sales Co 26
*Interstate Color Co. ..... December

R. A. Jones & Co. 16

*Koppers Products Co. 96
Kranich Soap Co. 100

*Leghorn Trading Co. ..... December
Lowell Sprayer Co 96

Magnus, Mabee & Reynard, Inc. 99
Manufacturing Chemist 66
Maryland Glass Co. ..... December
Masury Young Co. 103
*McCormick & Co. 76
McLaughlin, Gormley, King Co. 74, 75
Mechling Brothers Chemical Co. 117
*Metal Package Corp 72
Monsanto Chemical Co. ..... Back Cover
Murray Oil Products Co. 111

National Collapsible Tube Co. 112
Naugatuck Chemical Co. ..... November
Newman Tallow & Soap Machinery Co. 108
New York Soap Corp 106
*Niagara Alkali Co 8

Owens-Illinois Glass Co 42

Palmer Products 119
Pease Laboratories 102
S. B. Penick & Co. ..... December
*Philadelphia Quartz Co. 3
R. L. Polk & Co. 117
*John Powell & Co. 56, 71, 112
*Proctor & Schwartz, Inc. 68
*Pylam Products Co. 119

R. C. Can Co. ..... December
Reilly Tar & Chemical Co. 100
Rohm & Haas Co. 98

C. G. Sargent's Sons Corp ..... December
Geo. A. Schmidt & Co 113
Sherka Chemical Co. 52
Sherwood Petroleum Co. ..... December
Skinner & Sherman 115
D. B. Smith & Co. 109
*Foster D. Snell 115, 117
Soap Trade and Perfumery Review 46
*Solvay Sales Corp 50
L. Sonneborn Sons 90
*Standard Silicate Co. ..... December
Stauffer Chemical Co 52
Stein-Brill Corp 113
Stillwell & Gladding 115
Stokes & Smith Co. ..... December
Struthers-Wells Co. ..... December
*Swann Chemical Co. 112

Theobald Animal By-Products Refinery 50
A. M. Todd Co. ..... December
John Brageser Steam Copper Works 111

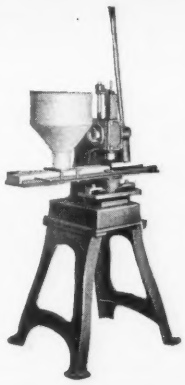
*Ungerer & Co. ..... Front Cover
U. S. Sanitary Specialties Corp 12

*Van Ameringen-Haebler, Inc. 38
J. A. Vaughan Mfg. Co. 96
Albert Verley, Inc. 13
Victor Chemical Works 54

*Warner Chemical Co. 57
Welch, Holme & Clarke Co. 54
*White Tar Co. 110
Wilson & Bennett Mfg. Co. 56
*Windsor Wax Co. 119

Sole Maker of
RUTCHMAN
Mills and Twin
Screw Plodders

Best Productive
Equipment
Built Since
1860 and Still
Going Strong.



PARA BLOCKS — at Low Cost!

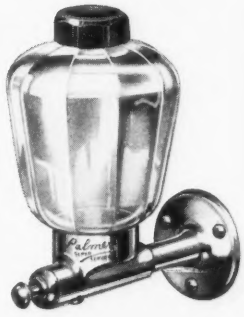
These two practical machines are all you need to produce high quality para blocks or cakes. The hand lever press on the left has more power than cheap foot presses. Inexperienced operators can rapidly turn out fine looking blocks, at a saving of from 5% to 10% over the hot process.

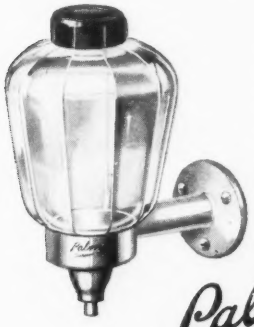
The mixer, illustrated on the right, was designed for Para Block use, and will also prove of service on other products such as cleansers, bath salts, roach powders, creams, etc.

HUBER MACHINE CO.
259 46th Street Brooklyn, N. Y.
Makers of Good Soap Machinery for Forty Years

PALMER SOAP DISPENSERS

The Palmer SUPER SERVER Dispenser (right) is priced very low but has no equal in value. Metal parts are non-corrosive, stainless, chrome alloy. One piece bracket in beautiful satin chrome-like finish. Valve parts easily removed for cleaning or replacement. Crystal glass decagon bowl (opal glass on special order)—decagon black bakelite cap. Large 1-inch opening makes filling easy—no need for removing or inverting bowl. The lowest priced push-in dispenser—yet neat, compact, durable.





The Palmer "D.C." Dispenser (dependable construction), shown at the left, is the lowest priced dispenser offered. Has simple, positive spring-controlled valve. All metal parts chrome nickel plated. Fill through large 1-inch top opening without removing or inverting bowl. Crystal glass decagon bowl (opal glass on special order)—with decagon black bakelite cap.

Palmer PRODUCTS INC
WAUKESHA, WIS.
Adjacent to Milwaukee

NRA U.S. WE DO OUR PART

8c per lb.

Guarantees a

Superfine
Brushless
Shaving
Cream

that not only gives a smoother shave but protects skin as well.

CONTRA-FOAM B

Nothing else but water is required. Simply heat 1 oz. Contra-foam in 3 parts of water and stir until cream foams. Add a slight scent if desired.

Samples and prices on request.

Pylam Products Co.
Manufacturing Color Chemists
799 Greenwich St., New York City

FLOOR WAX

LIQUID
PASTE
POWDER

New Improved Self-Polishing Liquid Wax
UNDER YOUR OWN LABEL
We print the label
Send for Samples and Quotations
WINDSOR WAX COMPANY
50 Church Street *REctor 2—0661* **New York, N. Y.**
Factory: 611-617 Newark St., Hoboken, N. J.

Can You Supply

Bulk or Private Brand

SOAPS — SOAP BASE — DISINFECTANTS CLEANSERS — POLISHES — HOUSEHOLD INSECTICIDES, ETC.?

THERE is a real market among the readers of SOAP for all kinds of bulk and private label soaps, liquid soaps, disinfectants, deodorants, cleaning preparations, polishes, fly sprays, insecticides, etc.

MANY companies are not in a position to manufacture each and every product which goes to make up their complete line. Products not manufactured are, quite naturally, bought in the trade. Then, there are other manufacturers looking to expand their lines without increasing their manufacturing facilities. Are you in a position to handle this kind of business in your specialties?

IF YOU do or can manufacture any of these products in a large way and desire to dispose of a portion of your output to be sold to other manufacturers and distributors, to be marketed under private brand or for repacking, it will pay you to apprise the trade of this fact through the advertising pages of SOAP.

Write to the Advertising Department of SOAP, 136 Liberty St., N. Y., for further information.

OUR "SERIES A" PERFUMES

developed especially FOR SOAPS

ARE WINNING FAVOR.

LAVENDAR	FOR SOAP, SERIES A			
ROSE	"	"	"	"
LILAC	"	"	"	"
JASMIN	"	"	"	"
BOUQUET	"	"	"	"
COLOGNE	"	"	"	"

These six special soap odors, developed and *tested* in our laboratories, are pleasant, popular types. You will find them delicate in tone—persistent—and economical.

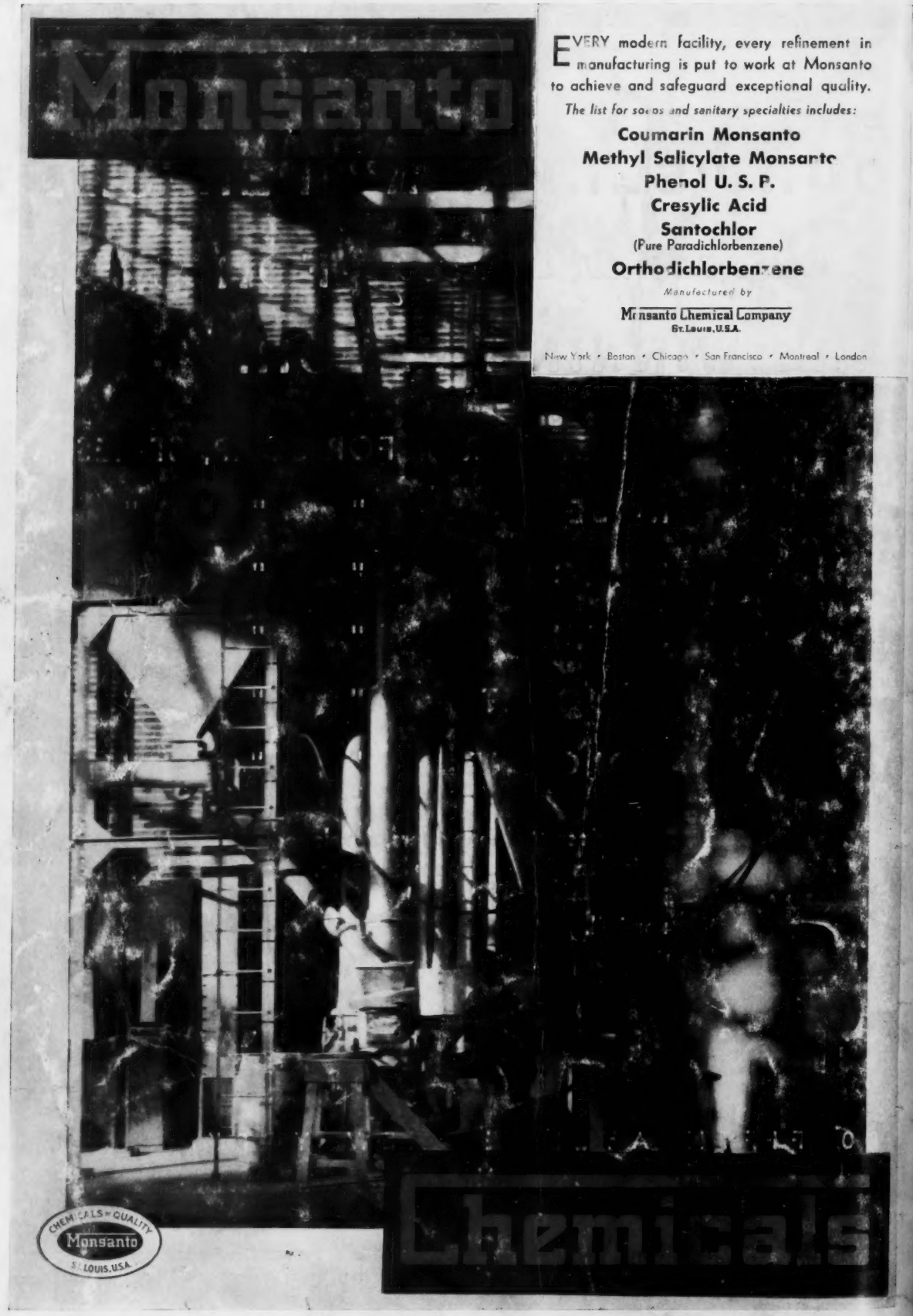
$2.50 A POUND
(less for larger quantity orders)

NRA MEMBER U.S. WE DO OUR PART

GIVAUDAN-DELAWANNA

80 FIFTH AVENUE, NEW YORK, N. Y.

BRANCHES Philadelphia, Los Angeles, Atlanta, Cincinnati, Detroit, Dallas, Baltimore, New Orleans, Chicago, San Francisco, Montreal, Havana



EVERY modern facility, every refinement in manufacturing is put to work at Monsanto to achieve and safeguard exceptional quality.

The list for soaps and sanitary specialties includes:

Coumarin Monsanto
Methyl Salicylate Monsanto
Phenol U. S. P.
Cresylic Acid
Santochlor
(Pure Paradichlorbenzene)
Orthodichlorbenzene

Manufactured by

Monsanto Chemical Company
St. Louis, U.S.A.

New York • Boston • Chicago • San Francisco • Montreal • London